Education Policies

Recommendations in Latin America Based on TERCE
Education Policies

RECOMMENDATIONS IN LATIN AMERICA BASED ON TERCE
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The support from each individual was fundamental in creating a quality document that in the end helps in the construction of public policy within the framework for Education Agenda 2030.

This document is a draft.
"Guatemala is making efforts to improve the levels of students learning, taking into consideration the diversity of cultural and socio-economic contexts. The Ministry of Education recognizes the importance of participation in international evaluation processes, which provide evidence for comparing educative progress in the region, learning from the experience of other countries and making better decisions. In this sense, the Recommendations for TERCE Based Educational Policies in Latin America document is an instrument that enables a national analysis and a favourable scenario for the inclusion of different sectors in constructing better national policies. This Ministry endorses the recommendations contained in this report and considers them to be a valuable collaboration to national education".

**Doctor Oscar Hugo López Rivas**
**Minister of Education**
**Guatemala**

"Making evidence-based decisions has been relevant for some time now in designing and developing educational policies. The OREALC / UNESCO comparative and explanatory regional study is a fundamental tool. Evaluation, understood as the production of information and its comparative analysis among countries in the region, allows us to build a wide point of view, which can be used to learn the features and needs giving rise to education as a human right for all over the whole lifetime. In this sense, this study leads us to deepen the necessary link between evidence and our country's educational policies".

**Mag. Edith Moraes**
**Undersecretary of Education and Culture**
**Ministry of Education and Culture**
**Uruguay**
"The document emphasises the need to base educational policies in empirical evidence, with conceptual frameworks that allow us to conceive education from a model that can be adapted to the realities of the different countries in the region. This requires certain skill from the decision-makers, who, given the current document, should frame future actions in improving the educational system.

The data show the main features from countries in the region, unveiling aspects that must to be modified in their educational system. As well, the proposed ecological model allows us to understand the influence of political decisions at different structural levels, from the roots to macro levels, or vice versa; or even in a combination of both".

General Management of Educational Planning
Ministry of Education and Culture
Paraguay

"The document holistically presents the region’s main educational outcomes, according to ecological model, which considering context, educational system and schools as fundamental to the analysis of public education formulation and implementation.

This approach is the best tool for establishing education as a fundamental right. This starts from the possibility of continually evaluating the educational system quality at national and international levels to show progress and challenges, determine the viability of educational policy and stipulate the best way of formulating the pedagogical outlines to guarantee the agreed upon rights in the context of each country".

Víctor Javier Saavedra Mercado
Deputy Minister for Preschool, Primary and High School Education
Colombia
The document makes an extraordinary contribution for decision makers at Education Ministries of the region and, therefore, is required reading. It contains a deep, rich analysis, that can be compared with the different principles and challenges our educational systems are facing, with empirical evidence for better understanding our reality. The most valuable aspect of the document are the recommendations for Educational Policies, including specific measures for local implementation - including at the school level - for ensuring the objectives are reached. For the SEP, the recommendations for educational policies are inserted into the 2012-2018 Educational Reform, whose main objectives are: quality education with equity and inclusion, teaching professionalization; the school at the heart and, finally, evaluation and improvement of the National Education System Management.

Congratulations to UNESCO for going beyond the publication of the TERCE results. This study will be an important contribution to the planning and implementation of strategies oriented towards improving learning of all students. In particular, the proposed conceptual models are a valuable tool for thinking about educational processes and their integral and multidimensional interaction with the social, economic and cultural context. At the same time, the suggested recommendations for addressing the region’s major educational challenges bring us new perspectives and experiences, which motivate us to continue pursuing more effective policies for our country. In this way, this document shows that the production and use of knowledge are central to planning and managing educational improvement, and that these efforts should continue and expand in the region.

Mtro. Otto Granados Roldán
Undersecretary for Planning, Evaluation and Coordination
Secretary for Public Education, Mexico

The study "Recommendations for TERCE-based Policies" is a very useful contribution to the planning and implementation of strategies oriented towards improving learning of all students. In particular, the proposed conceptual models are a valuable tool for thinking about educational processes and their integral and multidimensional interaction with the social, economic and cultural context. At the same time, the suggested recommendations for addressing the region’s major educational challenges bring us new perspectives and experiences, which motivate us to continue pursuing more effective policies for our country. In this way, this document shows that the production and use of knowledge are central to planning and managing educational improvement, and that these efforts should continue and expand in the region.

Mercedes Miguel
Secretary for Innovation and Improvement of Educational Quality
Ministry of Education and Sport
Argentina
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Education plays a vital and universal role in people’s lives, and is a tool that helps create more just, equitable and tolerant societies. The Sustainable Development Agenda 2030 recognizes this, not only by including it as Objective No. 4, which is "to ensure inclusive, equitable and quality education, promoting life-long learning opportunities for all" but also by giving it a key role across all other Sustainable Development Goals.

In this context, and taking the right to education as a reference framework, the OREALC / UNESCO Santiago, through the Latin American Laboratory for Assessment of Education Quality (LLECE), published the main results from the Third Regional Comparative and Explanatory Study, TERCE in 2015. The study, which showed learning achievements and associated factors in 15 Latin American countries and in the Mexican State of Nuevo Leon, has been contributed towards to decision-making in educational policy and improving education systems in general.

For the Right to Education to become reality, it requires political and financial commitment from governments as well as the technical tools to help monitor the degree of completion of that right. For this reason, OREALC / UNESCO Santiago published the Recommendations for TERCE-based Educational Policy in Latin America document, which is a technical tool for supporting decision making in educational policy.

This publication is aimed at educational policy makers. Decision making, for the LLECE, must be based on evidence and anchored to some conceptual models that interpret reality in some way. This document satisfies
this intention, since it has the fundamental quality of translating the TERCE evidence-based conclusions into educational policy and practices. In this sense, the empirical evidence provided by the study shows the main factors affecting learning achievement, and which represent concrete challenges for educational policy.

This document proposes lines of action and specific recommendations for each issue previously diagnosed in the book of TERCE associated factors. The policy recommendations made in each section are based on the review of recent literature and are reinforced by specific examples of policies implemented in the 16 education systems participating in the study. This evidence is for two levels of educational policy decision-making: local and national; this was done as a response to the constant demand for alternative instruments, which are adapted to different economic and social contexts.

With this document, the results of TERCE are grounded at a conceptual and practical level, oriented towards educational policy creators and managers, meaning that this large-scale evaluation is not only for research and diagnostic results but also for the design of sectorial policies in education.

The TERCE-based findings make two major contributions: identify key intervention areas for decision makers, based on solid empirical evidence; at the same time the results of this research invite us to take urgent action to reduce educational inequalities. The Recommendations for TERCE-based Education Policy in Latin America document fulfills this objective and therefore the Sustainable Development Goals.
Executive Summary

Holistic conceptual frameworks are needed to help prioritize the most important variables and their interrelationships for a more complex and rich analysis of problems that educational policies need to solve. For this reason, this report offers three complementary ways of understanding educational policies, which are organized around the following questions:

- How are the educative policy challenges organized?
- How are policies moved forward?
- What is the development level of the national educational systems in the region?

The ecological model is the initial framework and shows that the schools are contained in wider interconnected systems, that is, the local environment, the educational system and the national context. The variables that, according to the TERCE, are learning-related and part of the national context are: economic inequalities, rural schooling, school attendance, child labour, gender inequalities and indigenous peoples.

The educational systems’ structural elements are considered and are subject to change from education authorities at different levels. This area includes, but is not limited to the system configuration, regulating standards, policies and programs. The analysis and recommendations consider the attributes such as compulsory nature of education, financing, evidence-based decision making, early childhood, repetition and attention to educational gaps, teacher training and information and communication technologies. Regarding variables recognizable in the schools, characteristics that shape the potential to reach these goals, among them: learning inequalities inside the school, possession and use of textbooks and exercise books, infrastructure and school services, use of time, school processes and educational practices.

A "combined" approach (Cerna, 2013), which fits appropriately with the characteristics in the ecological model, is used for educational policy implementation. The approach considers a top-down decision cascade, from the central authorities to premises and schools,
including the existing capacities in the different countries in the region. This also occurs in the opposite sense, bottom up, as much for implementing and adjusting national programs to the local reality, as for developing their own interventions that can be aligned with national policies. A combined approach, that considers the top-down and bottom-up policies, is the best for adjusting to the reality of educational systems. Thus, the central authorities establish widely ranging priorities and policies that are interpreted by the local actors, who can even develop specific practices and programs, responding to the global policy intentions while considering the local reality.

Accordingly, two types of recommendations will be presented in this document for each educational challenge analyzed. On the one hand, there are general educational policy recommendations for educational systems. Furthermore, example recommendations are given of what schools and local stakeholders could do to address the obstacles to the children's right to education.

The McKinsey (2010) study was analyzed to understand the educational systems' development level, and this provided a conceptual framework allowing for a short-, medium- and long-term perspective of educational policies. The report identifies five stages of countries' educational development, based on student learning results: a) low; b) acceptable; c) good; d) very good; e) excellent results. The model suggests that policies should be changed as a country progresses through its educational development and this poses significant challenges for decision makers, since they need to both manage the educational system's current improvement, while preparing for the improvement in the next stage.

The report proposes a series of recommendations for the school system and school context variables, recognizing challenges in each area, along with policy and action examples for helping to overcome barriers to educational opportunities, which are the product of the social, economic and cultural environment at the national level. Recommendations for economic inequalities are given, considering that this factor has a major impact on educational performance. Student socioeconomic status is the variable with the greatest impact on learning, suggesting that Latin American school systems mirror the highly unequal societies in which they exist. Specifically, it points towards aspects that underpin the profound inequalities of the region's educational systems, such as the Gini index, which ranges between 0.41 and 0.54, according to the latest data from 2011 and 2012, despite there being a slight trend in inequality reduction between 2006 and 2013. At the same time, poverty, segregation and low social inclusion are described as phenomena associated with inequality, with important implications for education. However, the link between academic achievement and average socioeconomic level is not deterministic, since there are schools that serve vulnerable populations and achieve high learning outcomes, that is, there are similar schools for the same socioeconomic level that achieve dissimilar learning results. The difference in learning outcomes is lower in schools above the country's average socioeconomic index. The recommendations regarding this are, firstly, to define the degree of the education policy's focus or universalization and, secondly, to define the policy's focusing criteria. In general terms, effectively strengthening evidence-based educational and social policies is essential for unequal contexts like the region (Rivas, 2015; UNESCO, 2014). The report presents a series of educational policy recommendations based on the results of the school profile analysis.
Another aspect is the rural schools, which is a widespread reality in the region’s school systems in all participating countries with the exception of Costa Rica. Rural schools represent at least 30% of all educational establishments, and are associated with increased poverty, where access to formal education may be limited. Product of the geographic dispersion of population, schools in countryside are often numerous, but a low number of students attend each one, frequently with multi-grade classrooms, and their access to resources and infrastructure is smaller compared with urban schools. This prevents economies of scale in the educative services and suggests that rural populations face more precarious conditions. In this sense, UNESCO recommends continuing with measures that have already been adopted by some countries in the region, implementing, refining and redirecting them further than at central level, i.e. working with in Non-Governmental Organizations (NGO), local communities and the schools themselves to enhance activities aimed at relating the activities and dynamics intrinsic to rural areas with the educational processes.

Regarding school attendance, the high percentage of Latin American students that show chronic truism rates was analyzed. Those students who miss 10% or more of the school year count as is playing chronic truism and are at educational risk. Between 16 and 43% of third grade students in the region miss two or more school days a month, a number that varies between 13 and 39% for sixth grade students. Given the high levels of chronic truism in the region, educational and social policies need to be developed to help improve school attendance and increase time available for learning. The report makes recommendations for educational policy, such as eliminating all kinds of school or parents association payments that, explicitly or implicitly, could impose an economic barrier on the poorest families, which would enhance the Right to Education in the region’s educational systems. Secondly, explicitly prohibiting direct or indirect selection processes is also considered relevant for schools receiving public resources. Thirdly, it is important to strengthen and develop feeding programs and/or free school transport, which can help incentivize low-income families to send their children to school and expand their children’s school choices. On the other hand, incentive and support programs are needed to help schools in the effective retention and learning development of the most vulnerable students. This may involves developing early warning systems, which can prevent student dropout, incorporating monitoring and evaluation processes for the children’s possible social and personal difficulties.

Child labour appears as another relevant variable for educational policies and on the effect in the student learning in Latin America. The remunerated child labour is consistently associated with less educational opportunities (Post, 2011; Post & Pong, 2009). In general, children who work achieve lower learning outcomes, fewer years of schooling, are more likely to repeat a grade and also to abandon formal education, creating up a contextual phenomenon that has a powerful influence on the Right to Education in the region. In addition to presenting measures for member countries, the report recommends implementing cash transfer programs to counter child labour in countries where this is an extensive problem. Along with this, these targeted policies need to be accompanied by socio-educational policies and initiatives that aim to support children and young people who confront the reality of child labour every day, similar to programs carried out in many countries that are in the initial development processes of their educational systems.
Significant gender disparities also appear in the region. In terms of performance, the observed pattern reveals that girls do better in reading tests, while boys achieve higher results in mathematics and science. However, in general terms, the differences in gender academic achievement show considerable variation in those countries, and there is no clear pattern in the region. Two elements could be associated with these results. On the one hand, there are clear differentiation processes countries in the region for gender roles, distribution of care, responsibilities and others, which may generate a gap to girls. Additionally, this phenomenon is related to teacher beliefs and expectations of student learning and academic performance, which tends to be that girls and boys have certain "innate" abilities, which is obviously reflects the construction of gender stereotypes in the region. As part of the recommendations, a necessary and careful review is suggested for the curriculum, texts and educational materials to explicitly deal with gender equity, showing men and women in different but equal social roles. Moreover, teacher preparation that promotes inclusive and equitable gender perspectives in teaching processes should be part of initial teacher training and ongoing professional development. In addition, efforts need to be made to include parents in these types of actions, so as to also work with the family for gender equity.

Indigenous people are lagging behind the non-indigenous population for all Latin American social indicators (Borja-Vega, Lunde, & García Moreno, 2007). This situation discourages greater equality in educational outcomes. Indeed, it is worrying that indigenous students tend, on average, to achieve lower results than their non-indigenous counterparts. Unfortunately, this result is consistent with previous UNESCO evaluations in the region (Treviño et al., 2010). It should be noted that disparities between the two groups remain even after socioeconomic differences are considered. This suggests that there are disadvantages associated with social relation patterns in the region's countries, which then emerge in differences of opportunities. That is why the recommendations are to strengthen teacher capacity for proactively including indigenous children in educational processes. The initial and continuing teacher training programmes should offer concrete proposals for including teacher capacity for cultural and linguistic diversity in schools. Teaching methods and evaluation need to consider indigenous cultural characteristics associated with organizing learning processes and their evaluation (De Haan, 2000; Treviño, 2006). Finally, strengthening the curricular design and developing educational materials that promote multiculturalism is recommended. Schools need to have appropriate inclusion materials and respond efficiently to the educational challenges posed by cultural diversity, particularly in schools with no experience in receiving indigenous students.

The document also reviews the main school system characteristics for conditioning opportunities for primary school children in countries in the region. Two main characteristics of these educational systems are identified. The first is the way formal education is organized, how decisions are made based on evidence and financing structure; while the second is based on the learning outcomes described by TERCE.

Elements such as the education system's compulsory nature and structure, early childhood education, the repetition and truism processes, teacher training, evidence-based decision-making, information and communication technology and funding, among others, are reviewed in this section, since they make up the structural characteristics of the educational system.
The **education system structure and organization** respond to the local needs and contexts in which they are developed. In this sense, criteria for organization and compulsory nature are established as one of the basic characteristics of educational institutions, thus creating the basis on which educational policies interact. The countries participating in the TERCE have very diverse educational structures, differing in their compulsory nature and income levels at initial, primary, and secondary levels, with their respective transitions. The **average years of compulsory education** is estimated at 12, Nicaragua being the lowest with six years, and Ecuador and Mexico the highest with 15. Primary school is only the compulsory level for all countries. This means an increase in the net rate of primary school inscription, reaching an average national coverage of 90% for the great majority of countries. Nevertheless, between 5 and 14% of the school age population do not participate in the education system, and there is a high probability that these groups belong to vulnerable sectors or with difficult access.

School system organization is linked to educational opportunity access in two ways: first, by defining the compulsory number of school years, there exists a commitment between the States and the population, generating a search for the political and social conditions for achieving these minimum thresholds. Secondly, the educational system structure defines the **existing transitions between levels** and their sense, which is why it is crucial that the system design considers the fact that highly significant changes tend to affect the most vulnerable students. Governments can develop induction processes as support mechanisms for transition establishments, helping them to become more effective and efficient.

A revision needs to also be done of the secondary and preschool, or initial, education levels, which are central for improving the educational systems' structure, due to their marked influence on the differences in student performance.

Any analysis of the educational systems' **financial structure** needs to consider the countries' Gross Domestic Product (GDP), given that this directly contributes to the direct resources available for investment in education. As a result of the improvement in the region's economic level, an increase in social expenses, including education, was noted, with around 4% GDP for most countries in the 2012-2013 year. This significant economic progress has a direct effect on coverage, which has meant an increase in school inscriptions at the regional level over the last seven years.

Despite this progress, 90% of public expenditure on Education in most countries is committed to running costs, leaving a narrow margin for investment and development, which can be explained by two reasons: the first is that either greater financing is required to increase flexibility in dedicating resources, or the high running costs are a product of the educational system organization, where the human resources (teachers) take up the largest part of the budget.

Regarding educational financing, four criteria can be suggested. The first is related with the amount of public resources dedicated to education, which, according to UNESCO recommendation, should be about 6% GDP or 20% of the total public budget. The second is related with financial formulas and the consideration of specific situations allowing for corrections according the educational system needs and the contexts in which they are independently carried out. The third has to do with the type of indicators used for assigning
resources, both for purchases and results, in a way in which they are transferred according to performance criteria. The fourth is related to the laws associated with financing, in which countries are recommended to have commitments or fiscal agreements that link state policies with school systems.

Despite the great steps that the region has made in terms of data production for evaluating educational systems, these have not always been considered when taking decisions; this could be linked to cultural practices, lack of technical abilities or the absence of integration between systems. One of the central tools for data collection are student evaluation systems, standardized tests that are applied at the national and international level, and that establish learning goals and explanatory factors. This mechanism delivers information about the educational systems, students, educational management and student levels, among other issues. However, evidence-based decision making is not yet a generalized practice in the region.

The information collected by education ministries or public agencies is a great monitoring mechanism, but institutions need to be developed that link these results to satisfy the objectives. One option is to create organizations in charge of consolidating the information and of designing an efficient delivery mechanism for transforming it into a relevant product for the different actors.

Worldwide research shows that initial education of quality contributes towards improving educational and life opportunities of the most vulnerable populations, given that it has an impact on cognitive development, on values, personality, and behaviour, among others. The TERCE results show that children who attend initial education, between 4 and 6 year old, achieve better primary learning results, showing that this level has important benefits that are maintained over time. The regional level coverage is relatively low, varying between 50% and 80%. Given the relationship between initial education and later performance, the development of this level has become a national priority for many educational systems in the region. This way, focusing on increasing coverage and the quality of these levels is essential, especially for the more vulnerable population segments; this promotes actions that ensure the rights of the child in early childhood. Experience shows that increasing coverage without improving quality is not enough, and so an investment must be made in teaching and technical personnel with specific knowledge for promoting child development. Institutions that enhance the development of capabilities and technical support for childhood attention and education need to be created, which must be responsible for its quality standards, infrastructure and teaching processes, among others.

The educational model structure establishes the learning to be achieved at the end of each period, an organization that has allowed access to be expanded and virtually universal attention to be offered. However, this model requires the implementation of mechanisms for those students who do not reach the required learning levels, those being grade repetition, measured by ability to create solutions. About a quarter of third and sixth grade students in the region has repeated at least one school grade, which demonstrates a widespread phenomenon that inefficiently improves learning. According to the TERCE findings, there exists a negative association in all countries, since repeating students do not improve their learning achievements, but instead show lower levels than their peers who have not repeated. For this reason, it is crucial to consider alternative models to repetition that include specific areas of student attention and effective interventions. The results show that repetition oriented
towards improving of student learning is an ineffective mechanism and could be linked to other problems. For this reason it is essential to develop preventive formulas for avoiding it or leaving it as a last resort. The recommendation is designing and testing academic support programs for lagging students, which should be at the service of the schools and teachers, and include a multidisciplinary team. This way, it is possible to evaluate students on an ongoing basis and adjust teaching strategies in time where necessary.

**Teacher education** represents a fundamental tool for generating and improving teaching capabilities in educational systems, where the teacher preparation can be divided into two stages: *initial training*, which defines the minimum study requirements; and *in-service training*, which corresponds to specialized training after the initial training has been finished. This training is organized in a teaching degree in most countries. However, the research has shown that the observable teacher attributes are not usually related with the learning achievements (Rockoff, Jacob, Kane, & Staiger, 2008). According to the TERCE results, two-thirds of teachers on average have a teaching degree, although this varies among countries; this is the main challenge for education systems, given that it has a direct impact on student outcomes and the educational quality. Given the above, Latin American countries have focused on having a body of professionalized teacher, so there has been a recent increase in the years of initial and ongoing teacher training, but this has not necessarily been accompanied by improvements in classroom practices, which are the basis for quality education. Initial and continuous training needs to be strengthened for this reason, through the promotion and admission into pedagogical studies, improvement of training programs, quality reinforcement and regulatory systems.

The use of **Information and Communication Technology** (ICT) has been linked with the students learning support, especially focused on computer use. However, the TERCE results show that the relationship between ICT and learning varies according to intensity of use, generating both positive and negative results in learning. The main challenges seen here are two. The first is the digital divide that exists between students, i.e., unequal access to ICT and internet, where more than half of students report not using a computer at school. Secondly, how technology is used to support learning, through the computer integration linked to appropriate use, accompanied by teaching practices. The main policy recommendation is contextualizing and integrating ICT as a tool for accessing knowledge and promoting learning in students. Guiding criteria need to be established for this. UNESCO proposes a series of measures, including developing new experiences, facilitating collaboration inside the classroom, using student ICT knowledge for mutual learning, promoting culture and respect through pedagogical practices, including ICT use as a learning tool in initial education, encouraging the creation of information exchange networks and fostering innovation spaces for ICT use.

Next are the challenges that **schools** face in improving education quality and equality in the region, given that they represent the social institution assigned the role of realizing comprehensive student development, being one of the spaces of greatest socialization, personal development, and sense of community in contemporary societies. The elements dealt with below correspond to the main findings of the TERCE study and are complemented with other relevant research.
Learning inequalities among students of the same school has increased in the region, while inequality has decreased between schools. This is due, in part, to improved living conditions, poverty reduction and an increase in educational investment. However, the fact that student achievement differences inside school has increased in most countries generates important teaching challenges, since the differences are not associated with socioeconomic levels, but inside teaching tools such as segregation inside schools. This learning inequality should be addressed through designs, implementation and evaluation of tools such as the diversity of learning needs and that apply to the whole organization. The support tools for driving learning must be specific and with a defined time frame, so as to focus on the disciplines in which the students have difficulties and address them with specific support.

TERCE shows that children who have personal textbooks and exercise books obtain higher learning achievements, since they serve as a curriculum implementation guide for teachers and students, in addition to being a resource of materials that support learning. While the region has made progress in the delivery of materials, it continues to lag in some aspects, such as the delivery of textbooks, which stays low in most countries. Half of sixth grade students, for example, have this resource. While the materials themselves do not guarantee learning, they facilitate student development and strengthens performance. This is why the delivery strategy should be relevant and diversified, taking into consideration student contexts and characteristics.

School resources like infrastructure, facilities and basic school services are important both for children welfare and security, and establish a minimum operation base for encouraging learning. However, their distribution is uneven and depends on socio-economic level.

Effective time use is significantly valuable to teaching and is possible to identify four core components for it: having a school timetable, continuous presence of students in the school and classroom, continuous and constant teacher presence and effective use of class time by teachers. Under this logic, the main challenges student truism (estimated at 10% for the region) and effective use of class time. Ensuring an appropriate timetable and school days, and regular teaching attendance through legal regulations and school monitoring activities should be done as a possible political response to these difficulties. Once teacher and student attendance and punctuality is achieved, effective time use strategies need to be incorporated. In this way, suitable planning, available materials, class preparation and efficient and purposeful routines inside the school are presented as essential recommendations.

Leadership policies inside schools have recently assumed greater importance in education policies, especially regarding the relationship between educational leadership and teacher performance and its impact on student academic results. The last McKinsey report states that manager characteristics is the second most important factor for studying academic results, and therefore has a direct impact on the education system efficiency, equality, and quality. The proposed recommendations include strengthening school leadership through specific policies such as raising management standards. The creation of specialized research and development and training policies for principals is added. This is linked, in turn, with the review of roles and responsibilities of principals regarding pedagogical and organizational leadership. Finally, the professional development path for principals needs to be reviewed, so that it not only reserved for pre-retirement teachers, also incorporating paths in the system where the principal's role is understood as a “final step” of a teaching degree (Oplatka, 2004).
Teaching practices in the classroom make up the other key process in schools with a high correlation with learning. The TERCE results reiterate the importance of classroom teaching practices for academic achievement in the region. The main challenges for this are promoting and improving emotional support, since between 20 and 40% of third-graders indicate problems with the classroom climate. On the other hand, between 60 and 80% of sixth-grade students have teachers that motivate them to continue studying when the subject matter is difficult. In general terms, it could be said that there is a good base of teacher practices, but these practices need to be made more consistent so that all students have access to emotional and learning support. In this sense, they are necessary systematic that structure initial and ongoing teacher training. Determining professional standards frameworks or other instruments for organizing the teaching degree and profession are indispensable elements. Teaching practices improve at the regional level when programs are implemented that allow for the learning of all school teachers and students, especially in iterative processes or pedagogical innovation, involving the educational community.

The purpose of this document is to provide empirical evidence for educational decision-making, focused on guaranteeing children’s right to education in the region, by reviewing conceptual models and policy recommendations from the major findings from the TERCE-associated factors study.

It is important to value the great progress and efforts in education the region has achieved in recent years. However, changing and implementing educational policies takes time, especially as it is manifested in educational actors and student performance. A coherent outline can therefore accelerate the change process. Some of the proposed changes are to keep the focus on improving equality, through compensation criteria with greater investment and continuous monitoring of education system performance. Carrying out these elements correctly will enable a better educational policy performance in the region.
Educational policies are the tool available to authorities for generating school system changes to improve learning opportunities for students and ensure the right to education for all in the region. They need to draw on empirical evidence and conceptual models to help understand each country’s reality and the nature and magnitude of the educational challenges being faced.

The current volume is a project from UNESCO and the Latin American Laboratory for Evaluating Education Quality (LLECE) by contributing to Right to Education guarantee, in the Education for All (EPT) commitment framework. Specifically, the 2015 EPT Incheon Declaration intends, by the year 2030, education to be equitable, inclusive, of quality and to be lifelong process. Education is understood as a human right in this way, and equal access to the educational system and learning needs to be guaranteed, reducing disparities between different population groups, especially that of gender. Educational system outcomes should be mediated by virtues, so education is expected to promote inclusion and attention to diversity of learning needs and educational services quality should be improved through well-trained teachers. Finally, education is not restricted to the completion of certain educational level, but is a permanent life-long process.

The realization of the Right to Education in children’s daily life requires both political and financial commitment from governments as well as technical tools that help to monitor the degree of compliance. In this sense, the empirical evidence provided by the Third Comparative and Explanatory Regional study (TERCE) shows the main factors affecting learning achievement, and which represent concrete challenges for educational policy.

The document is structured into four chapters and a final section for reflections. The first chapter presents three conceptual models that establish frameworks for evidence-based policy decision making, which will help the reader appropriately interpret the results. Initially, the ecological model is presented and shows how the schools are contained in wider interconnected systems, that is, the local environment, the educational system, and the national context. This way, it is made clear that the schools do not work in a vacuum, but are subject to external conditions that mould their operation. Secondly, the chapter briefly develops a conceptualization for implementing educational policies. These concepts, consistent with the ecological model (Bronfenbrenner & Morris, 1998), show that educational policies can be seen from a hierarchical perspective (for
top-down decision making) or an implementation standpoint (bottom-up), where local actors carry out adaptations, adjustments, or innovations in decision-making. Implementation recommendations from this model are also incorporated into the learning-associated factors offering improvement options from the bottom-up perspective. Finally, in this chapter includes models showing the need for long-term perspectives in educational system transformation. These models show the need for gradually building the capabilities needed to improve education systems, with coherent and permanent policies and greater institutional strength and continuity over time. Also, such models show clearly that improving school systems must be linked to the current country reality and while some stages can feasibly be rushed, in order to reach solid and permanent improvements, capacity building stages cannot be skipped.

Chapters two, three and four present the main challenges for educational policy in the region following the logic of the ecological model, which considers the context, the educational system and schools. Chapter two, context, examines the main challenges for improving learning affected by socioeconomic inequalities, rural life, school truism and child labour, as well as gender inequalities and disadvantages faced by indigenous students.

Chapter three deals with the educational system conditions. An analysis is presented of some fundamental structural conditions for learning opportunities. These include the school system organizations and the obligatory nature of education. Both attributes emphasize government commitment to the population reaching the minimum legally established years of compulsory education and overcoming difficulties that students may face over the educational system. Financing is another structural factor affecting the school system operation, and lastly, evidence-based decision making, given that the huge amount of already existing data on educational systems not always used to make decisions. After the learning-associated factors are analyzed, including opportunities to access quality early childhood attention and education programs, grade repetition, teacher training and information and communication technologies.

Chapter four focuses on analysing the educational policy challenges in improving school performance. Learning inequalities between students of the same school, text book and exercise book availability, school infrastructure, time use, educational leadership and teacher practices are analysed in this chapter.

The final reflections summarize this study's main findings and propose a future agenda for improving the design, implementation, and evaluation of policy in the region.
How to make evidence-based decisions?

Education is a human right and a public good that allows people to exercise the other human rights (UNESCO-OREALC, 2007). Two major complementary elements are needed to realize the Right to a Quality Education. On the one hand, laws of the highest order are needed for establishing quality education as a social right for the whole population. On the other, technical and conceptual tools are required that allow appropriate policies to be designed for the countries' needs and create monitoring and evaluation systems to ensure compliance by different population groups.
Given that this report originates from the TERCE, it is necessary to reflect on the role of evaluation in policy design and decision making before starting to discuss the subject. In its most general sense, evaluation allows for monitoring the implementation of the Right to Education and the development of educational systems in the region, and has supported processes for improving schools and education systems. However, questions have been raised at the global and regional level about inappropriate use of this mechanism, including the imposition of school incentives and punishments according to evaluation outcomes and the promotion of competition between schools. So, before 1997, when the First Comparative and explanatory Regional Study (PERCE) of the LLECE was carried out, the notion of implementation and evaluation of the Right to Education in Latin America and the Caribbean was mainly limited to school system access and compulsory school years established by each country's legal framework, and there was no evidence or information that could complicate this concept. Therefore, once the PERCE data was collected, and later with data from national evaluation systems, it was clear that school attendance and completion of compulsory education were necessary, but not sufficient, elements. Since then, evaluations have consistently shown that large learning inequalities among students at the end of primary education, and this is information on how the Right to Education is carried out in the region. These educational inequalities are marked by social imbalances, as evaluations have consistently shown that student economic level is the main predictor of average difference in academic performance between schools. In other words, the average results in a school are closely linked to the social origin of the attending students.

Seen in perspective, is possible to state that, a few decades ago, the region was concentrated on improving access to education, so that all the population could reach the legally mandated educational levels. Once this goal had been achieved in most of the region, the challenges become different in nature, as they require the construction of a solid skills foundation in school systems that strengthen learning opportunities, particularly for more disadvantaged students. Constant evaluation and monitoring offer valuable information for tracking the effectiveness of educational policies.

Evaluation has allowed for a more sophisticated perspective on the Right to Education, but this is necessary but not sufficient requirement for generating a deeper understanding of the educational challenges faced by countries. Holistic conceptual frameworks are needed that help prioritize the most important variables and their interrelationships for a more complex and rich analysis of problems that educational policies need to solve. For this reason, this chapter offers three complementary ways of understanding educational policies, which are organized around the following questions:

- How are the educational policy challenges organized?
- How are policies moved forward?
- What is the development level of the national educational systems in the region?

\[\text{Internationally, the debate regarding the intensity and use of educational evaluations has been important. Without there being a unanimous conclusion, over the last few years a consensus has been reached that the key issue is the way evaluation is used, rather than if the information is useful (or, on the contrary, counterproductive) for the development of educational quality and equality (Wayne Au, 2007).}\]
Three models are presented below in three different sections, which seek to respond to the questions raised. These conceptual models can help organize educational challenges and responses to them. Since, by definition, models are simplifications of reality, they seek to bring together the most essential items for policies. Also, it is important to clarify that these referential frameworks are not the only interpretations of reality and others could be used in the countries. Decision making for guaranteeing the Right to the Education must use clearly defined frameworks, which firstly allow the analysis of the educative policy organization; secondly, they offer a logic for understanding implementation and, finally, they provide a short, medium and long-term vision. This is precisely what this chapter aims to achieve.

1.1. How are the educational policy challenges organized?

The educational policy challenges are multiple and belong to different aggregation levels, proceeding from the general to the particular, and there are also important interactions between elements at different levels. A systemic model that differentiates the context, education system and schools is used to organize these policy challenges. The subsequent chapters of the book are organized according to the model categories.

The ecological models are represented as a series of concentric circles, representing the nested structure of educational systems and the inter-relationships between levels (Bronfenbrenner & Morris, 1998) (see Figure 1).

The outside circle corresponds to the national context. The graph shows the educatonal system and schools in an environment that has cultural, social, and economic dynamics and its own policies. These factors need to be recognized because they can condition or facilitate the success of policies and educational programs; in addition, these variables can also be subject to various educational measures. According to TERCE, the following variables are considered to be relevant to learning:

- Socio-economic inequalities.
- Rural schools.
- School attendance.
- Child labour.
- Gender inequalities.
- Indigenous peoples.
The second ring consists of the educational system itself and its main characteristics or attributes. The educational systems' structural elements are considered in this circle and they are subject to change from education authorities at different levels. This includes, but is not limited to the system configuration, regulating standards, policies and programs. Analysis and recommendations include the following school system attributes:

- Compulsory nature of education.
- Financing.
- Evidence-based decision making.
- Early childhood.
- Repetition and attention to educational lagging.

*Source: Own analysis, based on Bronfenbrenner and Morris (1998).*
● Teacher training.
● Information and communication technologies.

The central circle includes schools. Educational policy objectives should be realized through teaching and learning processes and surrounding organizational devices. However, schools have their own characteristics, which shape their potential to achieving the assigned purposes. The school attributes are as follows:

● Learning inequalities inside the school.
● Ownership and use of textbooks and exercise books.
● School infrastructure and services.
● Use of time.
● School processes.
● Teaching practices.

The triangle included in the model represents the idea that the context, the educational system and the schools are interconnected in different ways. It is essential to recognize the links between levels to better understand educational policy challenges.

1.2. How are educational policies carried forward?

The ecological model classifies different educational challenges according to the nesting level to which they belong. However, it does not offer routes for developing educational policies and programmes. For this reason, it is crucial to also have a model to account for this situation.

Among the many models for implementing of public policies, a so-called combined approach is used here (Cerna, 2013), which fits properly with the nested properties of the ecological model.

The implementation of educational policies can be thought of in two ways. A perspective conceptualizes the implementation as a cascade, where the decisions are top-down (Cerna, 2013). According to this conception, the policies are designed at the highest level of the school system and the decisions descend to the local authorities and schools, considering different capacities that exist at this level in the different countries of the region. This approach expects the actors at the intermediate and local levels to implement the policies as expected by the central authorities. Obviously, in practice, the implementation of these policies varies highly according to local characteristics. Despite this, policies developed in this way establish important criteria and signals for the school system as a whole, and often highlight the countries’ educational priorities.

The implementation of educational policies can also be seen as a type of seed that germinates, becomes a plant and, eventually, spreads into a forest. This type of bottom-up implementation aims to recognize the capacity of local actors to implement and adjust
national programs to the local reality, to develop their own specific interventions that can be aligned with national policies (Cerna, 2013).

A combined approach, which considers top-down and bottom-up policies, is the best for adjusting to the reality of educational systems. Thus, the central authorities establish widely ranging priorities and policies that are interpreted by the local actors, who can even develop specific practices and programs, responding to the global policy intentions while considering the local reality.

For example, the central authority could have decreasing the student truism as a policy. This type of policy can set goals for schools, offer resources and standards that allow school attendance to be improved. Meanwhile, local authorities and schools can implement specific measures to address truism, such as providing free school transport, encouraging children to attend by using attendance charts and prizes for those with higher attendance levels or establishing a communication system with parents to monitor student absences, understanding the causes and motivating families to send their children to school.

In summary, actions for improving educational opportunities and fulfilling the Right to Education come from the education system's central authorities through policies, but are embodied in specific measures in schools. Consistent with this conceptualization, two types of recommendations will be presented in this document for each educational challenge analyzed. First are the educational policy recommendations generally applicable for educational systems. Afterwards, example recommendations are given of for what schools and local stakeholders could do to address the obstacles to the children's right to education.

1.3. What is the development level of the national educational systems in the region?

Once models are established for classifying educational policy challenges and the way implementation deals with them, a reference framework is needed for structuring short, medium and long-term vision, depending on the education system development level.

The idea of organizing education systems according to their development levels emerged in the 60s, to understand the challenges through a stage-based classification, based on the educational level of teachers working in the school system (amount and type of training received). (Beeby, 1962,1966). These models used the educational level of teachers working in the school system (amount and type of training received).

The challenges are different in the twenty-first century, but efforts have been made to establish conceptual frameworks for understanding the way school systems progress in building teaching skills, consolidate the teaching profession and direct and achieve learning outcomes. The McKinsey report (Mourshed, Chijioke, & Barber, 2010) presents a proposal for understanding the evolution of school systems based on a progress review of 20 school
systems. This report proposes that education quality in these countries cannot exceed teacher quality. For that reason, the development stage proposal is structured around capacity building in the school system, with a long-term vision. The McKinsey (2010) study provides a conceptual framework allowing for a short-, medium- and long-term of perspective educational policies. This is based on a reconstruction of the measures implemented by the progressing scholastic systems. The report identifies five stages of countries’ educational development, based on student learning results: a) low; b) acceptable; c) good; d) very good; e) excellent results (see Figure 2).

**Figure 2.** Development Stages, in terms of limited student outcomes, can reach the minimum teaching quality established by the educational system.

![Development Stages](image)

*Source:* (Mourshed et al., 2010).

For the purposes of this report, the most valuable part of the McKinsey study is in the measures the countries implemented to advance between educational development stages. A summary is presented below of the policies that guided countries’ educational development when moving between the proposed stages (Mourshed et al., 2010):

- **From low to acceptable results:**
  - The interventions focus on establishing a minimum quality threshold in schools and are concentrated on developing the basic student mathematical and language abilities.
  - The policy offers this minimum quality to all students, regardless of the school they attend, by levelling teaching quality to reduce education variability between schools and ensuring that the whole system has a minimum quality level. This involves offering pedagogical scaffolding to teachers, who at this stage possess skills and knowledge.
  - When moving from low to acceptable outcome stages, the social policy deals with the satisfaction of student’s basic nutrition and health needs.
● From acceptable to good results:
  ➤ Interventions in this movement are developed to consolidate the founding pillars of the school system, which implies the production of high quality data performance and ensuring school and teacher accountability.
  ➤ An appropriate financial and organizational structure for the school system is created to be transparent, adequate and fair.
  ➤ Agreed on tested pedagogical models were built for system teachers to appropriate and apply in a generalized way.

● From good to very good results:
  ➤ The interventions in this period focus on ensuring that both school pedagogy (teachers) and leadership (management) are considered as consolidated professions, which implies establishing clearly defined professional practices and professional development paths, as occurs in medicine and legal careers.
  ➤ Teaching practices are legitimized by their effectiveness in producing learning and are established by a solid body of knowledge that is validated and organized by professional colleges. This means that there is broad agreement about how teaching should be and the outcomes that should be produced.
  ➤ Teachers and school leadership possess high levels of ability and take decisions about the measures that, in their opinion, can help improve learning.
  ➤ A departure from standardization is seen and a larger margin of decision rests in the good criteria of teachers and principals.

● From very good to excellent results:
  ➤ Improvement passes central authority towards the schools.
  ➤ Peer learning through interaction in schools and with other actors in the system is characteristic of this stage.
  ➤ The system strongly supports innovation and experimentation in schools.
  ➤ Responsibility for improvement is in the hands of schools and teachers, who have the skills to understand learning challenges their students face and implement effective practices in the classroom.
  ➤ Teaching is a highly reputable profession of proven efficiency.

● Arrival at the stage of excellent results:
  ➤ Teachers are characterized by leading reform and educational innovation, since they possess outstanding teaching abilities and are properly distributed among schools to avoid inequalities.

Given the urgent need to improve the region’s educational systems, it is common to find speeches looking for quick and complete solution. However, this kind of conceptual framework helps us to understand that the school system path towards quality and equality is long-term, that it is completed step by step and there is no way to magically pass from a low results situation to one of excellent achievements. Also, this perspective shows that new problems and challenges always arise, which must be carefully followed by the decision makers.
Only Chile and Brazilian State of Minas Gerais State from the Latin American education systems appear in this report. Both cases are classified in the acceptable results stage, having recently arrived at this level. Judging by the TERCE results, most of the region's countries can be found in the low results stage, moving towards acceptable, with the exception of Chile, followed by Costa Rica and Uruguay, which have the region's highest results and would be close to acceptable results. Following the McKinsey report, the countries in the low results stage should concentrate on basic mathematical and reading abilities and ensuring that schools offer a minimum standard of opportunities to all students, and they, as a minimum, reach that learning threshold. Similarly, school systems should concentrate on supporting teacher education with constant and material training that structures teaching practices in the classroom. At the same time, policies are required that gradually prepare teachers for the next development stage. This implies strengthening teacher training programmes through doctoral study scholarships in globally prestigious universities and programmes, renovation of the teaching staff in initial training institutions with graduates returning from doctoral programs, promoting research on the application and effectiveness of teaching models in the classroom, among others. In addition, as seen in this report, it is crucial to also strengthen school system financial structure evidence-based decision making, for which technical capabilities are also required.

The countries' educational development highlights the importance of aligning educational and social policies to progress towards Right to Education. Recent quality and equality progress in the region's countries is explicitly attributable to alignment efforts, matching the actions raised in the educational development stages described above. The central hypotheses on alignment, which seem to explain the educational development route of most countries in the region since the beginning of the 21st century, are the following (Rivas, 2015):

- The improvement in population living conditions allowed for greater inclusion and higher learning outcomes, as raised by the McKinsey report.
- Policies focused on promoting learning and monitoring results generated greater learning progress than public investment policies without alignment towards greater learning. The latter type has been said to follow the "water and pray" blueprint (Rivas, 2015), alluding to the increase in investment with a lack of focus, alignment, and monitoring.
- Free text book distribution and curriculum shaping policies created a "pincer effect", together with the assessments, which produced improvements in academic performance.
- The focussed policies allowed disadvantaged populations to be a central concern of school systems and it was to possible to implement the Right to Education in terms of increasing access and learning. This was achieved thanks to the policy alignment and constant monitoring of the system's performance and particularly of those sectors.
- Focussing on learning and the quality improvement led to reductions in repetition and ensuring educational routes for study completion at different educational levels.
- Consistent with the McKinsey report, this analysis also shows that the region has not recorded any change in pedagogical organization and implementation, or
in educational direction. It seems to be that creating agreed-upon pedagogical models of proven efficiency should be the central focus for the next stage of educational policy in many countries.

Finally, the example of Finland is also worth mentioning, one of the most effective and egalitarian educational systems in the world. Three major stages of educational development began to be identified in this country from the end of the Second World War (Sahlberg, 2011):

- **1945-1970**: At this stage the focus was on improving fairness of opportunities in education and transforming from an agricultural to an industrial society.
- **1965-1990**: A comprehensive scholastic system was created over this period, using the logic of a Nordic social welfare system in an increasingly technological and innovative society.
- **1985-2014**: This phase was characterized by improvements in the quality of primary education and expanded opportunities in higher education, based on the new identity of a highly technological society.

Finland has been working since 1985 on aligned technical efforts with a medium and long-term vision. Figure 3 summarizes the phases that Finnish educational system has experienced from the 1980s. It can be seen that this country began its most recent journey by reframing its theoretical and methodological bases for schooling. They defined a specific understanding of knowledge and learning, aligned with constructivist logic. Similarly, teaching methods were designed that proved to be effective and were coherent with concepts of knowledge and learning. In the 1990s, once the previous stage was consolidated, improvements were introduced that aimed to strengthen values behind the educational proposal, the creation of communities and networks of learning, as well as the evaluation of classroom learning. This stage is defined as self-regulating change, i.e., a stage in which schools become responsible for innovation. But this is given once the capacities were in place to ensure the new proposals worked properly. Efficiency and management began to be improved once the previous stages were consolidated. The school actors established efficiency improvement as a goal, obtaining the same (or better) results with less economic resources.

It can be concluded that Finland has followed a planned route, with conceptual definitions and the policy designs that follow defined conceptual frameworks and mechanisms for monitoring and adjusting the measures taken.
Synthesis

Completing the Right to Education requires making evidence-based decisions that respond to defined reference frameworks, allowing for the organization of educational challenges, providing guidelines for policy implementation and, finally, offering a temporal perspective to gradually build educational system capabilities.

Three types of conceptual models for framing evidence-based decision making were presented in this chapter. Firstly, the ecological model is used to respond to the organization of educational policy challenges. This model clearly shows the complexity of educational challenges when placed in the national context, school system, and school scope. The complexity, in addition, is exacerbated by the interrelation of the three nested levels. It is worth remembering that this model is used to structure the rest of this document.

Secondly, the chapter speculated about how the policies would be carried forward. Since this volume focuses on policy recommendations, it is important to see these from the macro and micro level. The policies establish broad outlines and criteria for the school systems, while specific measures are carried out at the local and school level that should contribute to policy objectives. It is crucial that decision makers consider both levels as complementary, because educational opportunities and the Right to Education are in play in both. The document uses this framework to organize the recommendations, which always incorporate general recommendations for educational policy, followed by recommendations for specific programs, showing how this can be done at the school level.
Finally, a model is presented that offers a short, medium and long-term perspective of educational system development. The central message of this section is that educational policies should be attuned to the countries' social, political, economic and cultural reality and should be gradual, regular, aligned and consistent. Similarly, policies should be changed as a country progresses through its educational development and this poses significant challenges for decision-makers, since they need to both manage the educational system's current improvement, while preparing for the improvement in the next stage. Another lesson from the analysis is that it is impossible to skip stages, because all the examples given - inside and outside the region - show that constant and gradual effort allow the school systems to improve in a sound way, through the continuous improvement of established abilities.

With these elements in mind, the following chapters address the main challenges and recommendations for contextual variables, school systems and schools.
The countries' contextual information provides an approximation of the nature and scale of social and educational phenomena that policies need to address in improving education quality and student development opportunities. Although it is true that educational policies cannot radically change the context in the short term and require sustained long-term effort for economic and social issues, the proposed educational improvement measures for can be expected to consider the national and local conditions in their design and implementation. In this sense, elements such as social inequality, rural schools, family practices for regularly sending children to school, student participation in the workforce, gender inequalities and indigenous conditions must be taken into account by the education policy, as they interact with it. The challenges for each contextual area are presented below, and recommendations and policy and action examples are included in each section; these can help overcome educational opportunity barriers resulting from the nationwide social, economic and cultural environment.
2.1. **Socio-economic inequalities**

Challenges for education policy are closely linked to the social and economic situation of each context. The nature and magnitude of the problems to be solved depends on the countries’ social characteristics. At the same time, the capacity to deal with them is mediated by the economic resources available for education and by the national systems’ management form and capacity. The main challenges at the regional level related to the countries' social and economic characteristics are reviewed in this section.

### Challenges

The main problem facing the region is economic and social inequality, which has a large impact on educational performance. Student socioeconomic status is the variable with the greatest impact on learning, suggesting that Latin American school systems mirror the highly unequal societies in which they exist.

Latin America and the Caribbean is the region with the world's largest income inequality, which is additionally characterized by low social mobility, resulting in the inter-generational transfer of social status and poverty (PNUD, 2010). Income distribution inequality places important restrictions on the access to goods and services, including education, which affects the possibilities of improving quality of life for groups with lower economic resources.

One indicator used to measure income inequality is the Gini index. This indicator has a range from zero - representing perfect equality, where all members of the society receive the same amount of income - one - where one person receives all the revenues generated in society-.

The Gini index value in the region ranges from 0.41 to 0.54 in 2011 and 2012 data, as shown in Table 1. For the sake of reference, the average OECD indicator is 0.31 (OECD, 2013a), which represents a substantial gap from Latin America. Colombia, Brazil, Panama and Chile are the countries with the greatest income disparities, whereas Uruguay is the country with the lowest Gini coefficient. It is worth adding that the research has shown that the education system itself produces an important part of this inequality, especially through high rates of return on higher education (Lustig, Ortiz-Juarez, & Lopez-Calva, 2012) and that, in many cases, intergenerational mobility during the time education is not accompanied by mobility in terms of income or social position (Espinoza & Núñez, 2014). In other words, education systems do not generate spaces for the transformation of social conditions from one generation to another.

That being said, when observing inequality distribution trend over time, a slight trend towards the inequality reduction can be seen between 2006 and 2013 in most countries. It is noteworthy that this decrease could be mainly due to a temporary phenomenon, by implementing counter-cyclical economic policies in the region, and is not necessarily a trend in structural change (CEPAL, 2014).
Poverty is another economic and social phenomenon associated with inequality and with important implications for education. From a macro perspective, when poverty is widespread in large population segments, it imposes restrictions on achieving the countries’ educational objectives. Now, from the micro point of view, households in a situation of poverty tend to experience economic restrictions with nutritional consequences, of access to housing and general welfare. As an example, it is estimated that in 2004 in Latin America and the Caribbean the problem of inadequate food had a cost of approximately $6.7 billion to the countries in the region (Martinez & Fernandez, 2009). In addition, in situations of greater vulnerability, households even face important opportunity costs when sending children to school, both for the costs associated with attendance as well as lost family income of engaging in economic activities. Schools that deal with students living in poverty also face the challenge of generating school and teaching processes to alleviate the influence of poverty conditions on learning and the effective day-to-day student participation, which is makes it even harder, considering the vulnerable conditions of the student’s families. Finally, when the poverty levels are elevated, it requires an important amount of public resources to mitigate such situation, which limits the availability of resources for education from the public budget.

### Table 1. Socio-Economic Inequality Index (GINI)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0.48</td>
<td>0.47</td>
<td>0.46</td>
<td>0.45</td>
<td>0.45</td>
<td>0.44</td>
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<td>0.42</td>
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<tr>
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<td>0.55</td>
<td>0.54</td>
<td>0.54</td>
<td>…</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53</td>
</tr>
<tr>
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<td>…</td>
<td>…</td>
<td>0.52</td>
<td>…</td>
<td>0.51</td>
<td>…</td>
<td>0.5</td>
</tr>
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<td>0.56</td>
<td>0.56</td>
<td>0.54</td>
<td>0.54</td>
<td>0.53</td>
</tr>
<tr>
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<td>0.49</td>
<td>0.49</td>
<td>0.51</td>
<td>0.48</td>
<td>0.49</td>
<td>0.49</td>
<td>0.49</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.52</td>
<td>0.54</td>
<td>0.51</td>
<td>0.49</td>
<td>0.49</td>
<td>0.46</td>
<td>0.47</td>
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</tr>
<tr>
<td>Guatemala</td>
<td>0.55</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>0.52</td>
<td>…</td>
<td>…</td>
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<td>Honduras</td>
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<td>0.56</td>
<td>0.56</td>
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<td>0.53</td>
<td>0.57</td>
<td>0.57</td>
<td>0.54</td>
</tr>
<tr>
<td>Mexico</td>
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<td>0.48</td>
<td>…</td>
<td>0.47</td>
<td>…</td>
<td>0.48</td>
<td>…</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>…</td>
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<td>…</td>
<td>0.46</td>
<td>…</td>
<td>0.47</td>
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</tr>
<tr>
<td>Panama</td>
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<td>0.53</td>
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<td>0.52</td>
<td>0.52</td>
<td>0.52</td>
</tr>
<tr>
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<td>0.5</td>
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<td>0.53</td>
<td>0.48</td>
<td>0.48</td>
</tr>
<tr>
<td>Peru</td>
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<td>0.5</td>
<td>0.47</td>
<td>0.46</td>
<td>0.45</td>
<td>0.46</td>
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</tr>
<tr>
<td>Dominican Republic</td>
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<td>0.49</td>
<td>0.49</td>
<td>0.47</td>
<td>0.47</td>
<td>0.46</td>
<td>0.47</td>
</tr>
<tr>
<td>Uruguay</td>
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<td>0.48</td>
<td>0.46</td>
<td>0.46</td>
<td>0.45</td>
<td>0.43</td>
<td>0.41</td>
<td>0.42</td>
</tr>
</tbody>
</table>

*Source: Own elaboration based on World Bank data.*

---

2 The Gini coefficient is an inequality measure expressed on a scale of 0 to 1. A value of 0 represents perfect equality and value 1 perfect inequality. In a scenario of perfect equality (value 0) it is assumed that all individuals have an identical income level.

3 Researchers analyze the “undernutrition” problem, understood as inadequate nutrition either in terms of quantity or quality of food eaten.
Table 2. Percentage of population below the poverty line

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina **</td>
<td>24.8</td>
<td>...</td>
<td>...</td>
<td>11.3</td>
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<td>5.7</td>
<td>4.3</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Brazil</td>
<td>33.4</td>
<td>30.2</td>
<td>25.8</td>
<td>24.9</td>
<td>...</td>
<td>20.9</td>
<td>18.6</td>
<td>18</td>
<td>16.5</td>
</tr>
<tr>
<td>Chile</td>
<td>13.7</td>
<td>...</td>
<td>...</td>
<td>11.4</td>
<td>...</td>
<td>10.9</td>
<td>...</td>
<td>7.8</td>
<td>...</td>
</tr>
<tr>
<td>Colombia</td>
<td>...</td>
<td>...</td>
<td>42.2</td>
<td>40.4</td>
<td>37.3</td>
<td>34.2</td>
<td>32.9</td>
<td>30.7</td>
<td>28.6</td>
</tr>
<tr>
<td>Costa Rica</td>
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<td>18.6</td>
<td>16.4</td>
<td>18.9</td>
<td>18.5</td>
<td>18.8</td>
<td>17.8</td>
<td>17.7</td>
<td>18.6</td>
</tr>
<tr>
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<td>...</td>
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<td>...</td>
<td>...</td>
<td>67.7</td>
</tr>
<tr>
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<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Mexico</td>
<td>31.7</td>
<td>...</td>
<td>34.8</td>
<td>36.3</td>
<td>...</td>
<td>37.1</td>
<td>...</td>
<td>...</td>
<td>41.2</td>
</tr>
<tr>
<td>Nicaragua*</td>
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<td>...</td>
<td>...</td>
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<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
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</tr>
<tr>
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<td>23.2</td>
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<td>47.3</td>
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<tr>
<td>Peru</td>
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<td>40.5</td>
<td>37.1</td>
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<td>27.8</td>
<td>25.8</td>
<td>23.9</td>
<td>22.7</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>44.5</td>
<td>44.5</td>
<td>44.3</td>
<td>41.1</td>
<td>41.4</td>
<td>42.2</td>
<td>41.2</td>
<td>40.7</td>
<td>37.2</td>
</tr>
<tr>
<td>Uruguay</td>
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<td>17.7</td>
<td>13.7</td>
<td>10.4</td>
<td>6.4</td>
<td>5.9</td>
<td>5.6</td>
<td>4.4</td>
<td></td>
</tr>
</tbody>
</table>

*Results based on “Living Standards Measurement Survey 2014” by the National Development Information Institute INIDE, Nicaragua.

**Argentina’s data corresponds to the population living in poverty on urban areas i.e. the poverty rate for 31 conurbations.

Note: according to CEPAL methodological definitions of, poverty lines are determined from the value of a basket of goods and services that allow for basic needs, which is differentiated for each country and geographical area.

Source: Own elaboration from CEPAL data. Social Statistics Unit, on the base of special tabulations of household surveys in the respective countries.

The percentage of the population living in poverty has significantly declined over the last decade in countries participating in TERCE, from 37% in 2003 to 24% in 2013 (Table 2) and highlighting in this effort countries such as Peru, Uruguay and especially Brazil, which, in a decade, brought more than 50 million people out of poverty (Berg 2009). However, it should be noted that the incidence of poverty in Latin America and the Caribbean continues to be an impediment for improving the quality of education. For example, in Guatemala, Honduras, Nicaragua, Paraguay and Dominican Republic, at the beginning of the XXI century, around half of the population lived in conditions of poverty, which constituted an important obstacle to materialise educational opportunities.
Socioeconomic segregation of students among schools is one of the first manifestations of how the social inequality is reflected in school systems, and in Latin America this phenomenon has a high magnitude. So, there are few possibilities for boys and girls from different socioeconomic levels to be classmates in the same school (Risetti, 2014). The school systems reproduce the social and spatial segregation present in the countries of the region, since they do not generate the conditions for promoting processes of social mixing or equitable distribution of the educational opportunities. Although socioeconomic segregation between schools are clearly influenced by patterns of residential segmentation, in some cases the schools even generate a greater segregation through selection processes and institutional configuration of the educational systems (Elacqua, 2012; Flowers, 2008).

Social inclusion in schools can be seen, in broad terms, as a counterpart of segregation. Social inclusion in school systems shows the extent to which students from different social origin attend the same school. This can be measured by an indicator showing the variation percentage of students’ socioeconomic status inside schools (OECD, 2013b). The indicator has values ranging from zero to 100: the closer to 100, the the greater is social inclusion in schools. Only the socioeconomic status variability of the families is characterised in this indicator.

The countries of the region have low school social inclusion indicators, with an average of 54 points, which contrasts with the results of countries of the OECD, where this indicator reaches, on average, 75 points for students of 15 years (OECD, 2013b). As can be seen, this overall figure hides significant differences between countries. In order to analyse the results, and taking into account that the social inclusion calculated indicator is in a rank between 40 to 67 points, countries were put into three categories: a) between 40 and 49 points, b) between 50 and 59 points, and c) social inclusion indicator of 60 points or more.

In third grade primary, the group that exhibits the lowest levels of social inclusion, located between 40 and 49 points, is formed by Nicaragua, Uruguay, Dominican Republic, Costa Rica, Paraguay and Chile. In the social inclusion indicator between 50 and 59 points, is made up by the Mexican state of Nuevo Leon, Ecuador, Brazil, Guatemala, Peru, Honduras and Argentina. Finally, the systems school with greatest social inclusion, with indicators of 60 points or more, is made up by Colombia, Mexico and Panama.

Social inclusion in sixth grade is also low. The school systems where the social inclusion in the schools is lowest, with indicators between 40 and 49 points, are in Dominican Republic, Uruguay, Nicaragua, Costa Rica and Paraguay. Chile, Argentina, Ecuador, the Mexican state of Nuevo Leon and Brazil show inclusion indicators between 50 and 59 points. The highest inclusion indicators, 60 points or more, are registered in Colombia, Honduras, Peru, Mexico and Panama.
Graph 1. Social inclusion of the school systems in 3rd and 6th Grade

**Third grade**

- Argentina
- Brasil
- Chile
- Colombia
- Costa Rica
- Ecuador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Dominican Republic
- Uruguay
- Nuevo Leon

**Sixth grade**

- Argentina
- Brasil
- Chile
- Colombia
- Costa Rica
- Ecuador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Dominican Republic
- Uruguay
- Nuevo Leon

**Note:** Social inclusion school indicator is calculated as $100 \times (1 - \rho)$, where $\rho$ is the intra-class correlation students socioeconomic index. Therefore, $\rho$ is the proportion of the total variance in the students' socioeconomic indicator that happens between schools, considering that the total variance is the variance between schools added to the variance within schools.


Besides the separation of students by socioeconomic level in different schools, economic and social inequality decisively influences student learning outcomes. Therefore, given the social segregation in school systems, socioeconomic students status, averaged at school level, is the main factor which explains the differences of learning among educational institutions. This phenomenon has been corroborated by various international studies (OECD, 2010, 2013b; Treviño et al. 2010).

When analysing the learning variability, it is necessary to consider that these occur at two complementary levels. On the one hand, there are differences in learning achievements among students of the same school and, on the other hand, there are disparities in learning between schools. So, the total learning variability can be divided into the proportion occurring within and between schools.

As can be seen in the figures that appear below, most achievement inequalities are among students of the same school; these are not explained (unlike variability between schools) by student socioeconomic level. According to TERCE data, between 36 and 82% of the total learning inequality takes place among students of the same school establishment. This can be seen observed in the upper right columns for each country (see figure 24). The bottom bar represents the magnitude in the differences between students from the same school, after considering their socioeconomic level, and this indicator largely does not explain learning disparities within schools. This is partly due

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4 This data can be put into perspective by taking to the variance decomposition in PISA study as a reference, where for example, the average reading variance for OECD countries is 42% between schools and 65% within schools. This is reference information, since the measured target population and some characteristics of the PISA sample differ from the TERCE characteristics (OECD, 2013c).
to the social homogeneity of students who attend the same school, which prevents significant socioeconomic differences from existing inside schools.

In Graph 2, two bars are presented that show learning inequalities between schools before and after considering the socioeconomic level. The greater the difference between the bars, the larger is the socio-economic influence on achievement inequality between schools.

Depending on the country, discipline and degree presented in the graph, there are significant differences (between 10% and 80%) for the learning variability between different countries, showing dissimilar patterns by country and according to the distribution modality of variability (between or within schools). So, in third grade, Paraguay has the highest percentage of variance between schools (over 50%), before and after considering the socioeconomic level in both subjects evaluated. Nueva Leon and Colombia present minor variance percentages in this area. However, variation before and after considering this variable is very slight in these countries, being an indication that socioeconomic level does not generate significant differences in the percentage of scholastic achievement inside schools. In this other scenario, Nueva Leon and Chile present the greatest variation and after including the variable.

The country with the greatest variation between school achievement in sixth grade is Peru (50%) before and Paraguay (45%) after considering socioeconomic level in all three subjects (reading, mathematics and natural sciences). Similarly, there are not any very accentuated percentage variations in third grade; the most heterogeneous countries in achievement, according to subject is Chile (between 75 and 80%), Dominican Republic (between 70 and 80%) Nueva Leon (between 70 and 80%), Uruguay (75 to 78%) and Costa Rica (between 70 and 75%).
**Graph 2.** Academic Achievement Differences Between Schools and Inside Schools, Measured as Percentage of Variance.

**Natural Sciences**

**SIXTH GRADE**

![Bar chart showing academic achievement differences between schools and inside schools for natural sciences for different countries.]

**THIRD GRADE**

**Reading**

![Bar chart showing academic achievement differences between schools and inside schools for third-grade reading for different countries.]

**Mathematics**

![Bar chart showing academic achievement differences between schools and inside schools for third-grade mathematics for different countries.]

**SIXTH GRADE**

![Bar chart showing academic achievement differences between schools and inside schools for sixth-grade mathematics for different countries.]

Outcomes Report for Associated Factors. The importance of average socioeconomic level in schools when explaining learning inequalities invites a deeper analysis of this phenomenon. For this purpose, the relationship is studied between the average socioeconomic school level and the average TERCE\textsuperscript{5} learning outcomes. This information is contained in Figure 3, where each point represents a school included in the study.

For a unit increase (standard deviation) in the average school socioeconomic level, an increase is expected of between 58 and 66 points in the school learning results. Since the standard deviation in the learning scale is equal to 100 points, this represents between 58 and 66\% of a standard deviation in achievement. Such sizes could imply a difference of up to one school year in learning.

At the regional level, socioeconomic level differences between schools explain between 45 and 63\% of the achievement differences (see value of R\textsuperscript{2} in Figure 3). This means that there is a high probability that the socioeconomic inequalities convert into achievement disparities in countries in the region.

Finally, the association between academic achievement and average socioeconomic level is not deterministic, since there are schools attending vulnerable populations that reach high learning results. In Graph 3, those schools are above the line, which represents the relationship trend between the analyzed variables. In fact, a high dispersion in academic results can be observed among schools below the average socioeconomic level. That is, there are school establishments at a similar socioeconomic level that obtain dissimilar learning results. The difference in learning outcomes is lower in schools above the countries’ average socioeconomic index\textsuperscript{6}.

\textsuperscript{5} These profiles correspond to “a line describing the relationship between a social outcome and socioeconomic level” for a student average in a school (Willms, 2006). Two components of school profiles are taken into consideration: gradient and strength: The gradient shows the magnitude of the relationship between achievement and average school socioeconomic index and provides information about the academic results gap associated with the socioeconomic index differences of educational establishment. Strength refers to the percentage of variance in the average school achievement, explained by socioeconomic index, and shows that the extent to which student outcomes are associated with prediction from socioeconomic level (OECD, 2013b).

\textsuperscript{6} The socioeconomic and cultural family index includes mother’s educational level, type of maternal employment, money income range, housing floor material, home services, home goods and books available at home.
**Graph 3.** School profile for the whole region for each discipline and grade evaluated

**Natural Sciences**  
**SIXTH GRADE**

![Graph](image)

**THIRD GRADE**  
**Reading**

![Graph](image)

**THIRD GRADE**  
**Mathematics**

![Graph](image)

**SIXTH GRADE**  
**Mathematics**

![Graph](image)

In addition to the socioeconomic level, there are other social characteristics that affect learning opportunities and student outcomes. Learning differences associated with student socioeconomic level are also mediated by family cultural capital. Material inequalities are usually reflected in educational household practices: parents with more education tend to be closer to and have a greater taste for reading, have more tools for supporting school-age children show a greater concern for and generate spaces and routines for the study.

**Policy recommendations**

The broad learning inequalities related to socioeconomic student characteristics highlight the need for designing educational policies that consider this phenomenon. Empirical evidence about the relationship between socioeconomic status and academic results can help define two general principles for policy design. Firstly, the extent of education policy targeting and universalization needs to be defined. Then, the criteria need to set for the policy targets. In general terms, effectively strengthening evidence-based educational and social policies is essential for unequal contexts such as those found in the region (Rivas, 2015; UNESCO, 2014).

Country classification according to school profiles provides important information for making evidence-based education policy decisions to determine the type of policy targeting based on gradient characteristics and the inequality proportion (variance) in school achievement explained by socioeconomic level. Table 3 presents a summary of educational policies recommended according to gradient characteristics and the profile strength of each country, considering the different educational development stages McKinsey, 2010).

The first category shows countries where the relationship between the school socioeconomic level and academic achievement has a high magnitude, but the likelihood that this is met in all cases is low, because the percentage of achievement variance explained by the socio-economic school level is low. When this is true, policy efforts should focus on low-performance schools, relative independent of socioeconomic level.

If the relationship between the average socioeconomic level of the schools and the achievement shows a high gradient and explained variance, targeted policies related to student social characteristics would be more effective. This includes combined educational social policies, which improve both student living conditions of and the school capacities. When the relationship between school socioeconomic index and performance shows a low gradient and strength, universal policies would be preferable, due to low connection between the variables. In the mixed scenario, in which the profile shows a high slope and low explained variance, the policies focus should be on underperforming schools, relatively independent of socioeconomic level. Finally, in cases where the school profile is characterized by a low slope and a high percentage of explained variance, compensatory programs focused on vulnerable students are required, which will alleviate obstacles to performance. This information is useful for decision-making, but should be combined with other evidence for defining more specific educational policy criteria and guidelines.
### Table 3. Educational policy recommendations based on school profile analysis results.

<table>
<thead>
<tr>
<th>Pending</th>
<th>Strength or explained variance</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship between school socioeconomic level and academic achievement: a small change in school socioeconomic level is associated with a major change in performance. However, the probability of that is true for all cases is low, because the percentage of variance in achievement explained by school socioeconomic status is low.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational policies: must be focussed on low performance schools relatively independent of socioeconomic status. This is because it is unlikely that differences in socioeconomic status could explain school learning outcomes in most cases. Therefore, policies aimed only schools with lower socioeconomic status will not help underperforming schools that do not necessarily serve low socioeconomic groups.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countries with these school profile characteristics by evaluated discipline and grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Grade Reading: Nicaragua and the Dominican Republic.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Grade Mathematics: Nicaragua and the Dominican Republic.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Grade Natural Sciences: Ecuador, Paraguay and Uruguay.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Grade Reading: Ecuador, the Dominican Republic and Uruguay.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Grade Mathematics: Ecuador.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship between school socioeconomic level and academic achievement: a small change in average school socioeconomic level is highly associated with a major change in performance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational policies: they must aim to reduce performance inequalities linked with socioeconomic level. In the cases where wide learning inequalities exist between schools that are largely explained by the differences in average school socioeconomic level, the educative policies must aim to reduce the inequalities. Measures that increase social inclusion in the schools are required for this, such as those that prevent student selection. On the other hand, as suggested in the students and family chapter, a combination of policies is required to support vulnerable students and the schools that serve them, which often have lower educational achievement. It is worth mentioning that universally applied policy measures are unlikely to increase performance of the most disadvantaged schools and students, therefore, may have a limited impact on the average education system performance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countries with these school profile characteristics by evaluated discipline and grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Grade Reading: Brazil, Colombia, Ecuador, Guatemala, Mexico, Panama and Peru.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Grade Mathematics: Brazil, Colombia, Guatemala, Panama, Peru and Uruguay.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Grade Natural Sciences: Brazil, Guatemala, Panama, Peru, Dominican Republic and the Mexican state of Nuevo Leon.</td>
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<tr>
<td>6th Grade Reading: Brazil, Paraguay, Peru and the Mexican State of Nuevo Leon.</td>
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<tr>
<td>6th Grade Mathematics: Brazil, Mexico Peru, Uruguay and the Mexican State of Nuevo Leon.</td>
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<tr>
<td>Pending</td>
<td>Strength or explained variance</td>
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<td></td>
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<tr>
<td>Low</td>
<td>High</td>
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<tr>
<td><strong>Relationship between school socioeconomic level and academic achievement:</strong></td>
<td><strong>Relationship between school socioeconomic level and academic achievement:</strong></td>
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<tr>
<td>School socioeconomic level has a limited influence on achievement. Both relationship magnitude the and explained variance are low. This means that the association between the two variables is tenuous.</td>
<td>A change in school socioeconomic level is associated with a small change in performance. However, given the high variance explained by school socioeconomic level, this variable can be inferred to limits the improvement possibilities for students in schools with low socioeconomic level.</td>
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<tr>
<td><strong>Education policy:</strong></td>
<td><strong>Education Policy:</strong></td>
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<tr>
<td>In these contexts, universal education policies, which apply to the whole system escolar- are most appropriate for enhancing learning. These types of policies include curricular changes, improving teacher qualifications, attracting students with a strong academic background to teaching, challenging ongoing teacher training programs and widespread implementation of education systems with demonstrated effectiveness, among others.</td>
<td>Should be focused on removing the obstacles to high performance that are associated with socioeconomic status. Targeted compensatory programs must be established in schools serving vulnerable students, such as feeding programs, additional resources, educational materials, and free textbooks.</td>
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</tr>
<tr>
<td><strong>Countries with these school profile characteristics by evaluated discipline and grade</strong></td>
<td><strong>Countries with these school profile characteristics by evaluated discipline and grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3rd Grade Reading:</strong> Argentina, Costa Rica, Honduras, Paraguay and Uruguay.</td>
<td><strong>3rd Grade Reading:</strong> Chile and the Mexican state of Nuevo Leon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3rd Grade Mathematics:</strong> Argentina, Ecuador, Honduras and Paraguay.</td>
<td><strong>3rd Grade Mathematics:</strong> Chile, Costa Rica, Mexico and the Mexican state of Nuevo Leon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6th Grade Natural Sciences:</strong> Argentina, Chile, Costa Rica, Honduras and Nicaragua.</td>
<td><strong>6th Grade Natural Sciences:</strong> Colombia and Mexico.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6rd Grade Reading:</strong> Argentina, Chile and Nicaragua.</td>
<td><strong>6rd Grade Reading:</strong> Colombia, Costa Rica, Guatemala, Honduras, Mexico, and Panama.</td>
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</tr>
<tr>
<td><strong>6th Grade Mathematics:</strong> Argentina, Honduras, Nicaragua and Paraguay.</td>
<td><strong>6th Grade Mathematics:</strong> Chile, Colombia, Costa Rica, Guatemala, Panama, and the Dominican Republic.</td>
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</table>

The strong association between student and school socioeconomic level with educational performance, as well as child labor, reveal the existence of important social conditions that need to be addressed to improve learning opportunities. Since these factors involve cultural, economic and political situations that go beyond the field of education, the development of cross-sectional social policies (e.g. Health, food, housing, work, etc.) is required to mitigate the relationship of such factors with the academic achievement. Several studies have come to similar conclusions (Rivas, 2015).

Although conditioned monetary subsidies are not positively associated with learning, they represent a valuable strategy for encouraging the continued participation of the most vulnerable students in the education and health systems. Regular attendance at school, as well as health promotions, are initial and necessary conditions for learning, but do not
guarantee learning by themselves alone. It is essential that teachers and schools have the teaching tools and strategies, as well as the material conditions, to promote child development. In this regard, school support programs with monitoring and rigorous evaluation are needed, enabling their continuous adaptation to achieve the desired results. These are long-term programs, focussed on continuous improvement, that may require three or four years, working with school networks to share the teaching and school organization strategies that have shown good results in different contexts.

For this reason, an attraction and retention policy for effective teachers in vulnerable contexts is essential policy for any of the scenarios described above. Such a strategy should include economic incentives, working conditions that promote professional development, continuous training, the exchange of professional experiences and creating coexistence and collaboration spaces in school, that value teaching performance in environments that tend to be highly challenging, due to the workload and emotion effort involved in working with precarious student and family conditions. Finally, it is essential to promote and teach healthy lifestyle habits in schools in the region (especially for those with low development levels), along with maintaining and reinforcing school nutritional programs for students from low socio-economic levels, allowing for nutritional intake needed for healthy development. Efforts have been made in the region regarding this. Examples include the Chilean national initiatives through "School Feeding Program" reaching three million students; Colombia and Uruguay with similar programs, intended to complement the food provided in the home; while Brazil covered all primary school students with the "National Program for School Feeding (PNAE)" (Rivas, 2015).

> Box 1. Brazil National School Feeding Program

Brazil has implemented the National School Feeding Programme of (PNAE) since 1955 with the purpose of contributing to biopsychosocial growth and development of school performance and the formation of healthy eating habits, through feeding and nutrition education (through school gardens incorporated into the curriculum) and the supplying food for meeting nutritional needs during the school year. This is the largest and oldest program in Latin America, with universal coverage and food delivery free of charge. Students at all levels (nursery, primary, secondary and adult school), enrolled in public schools, charities, community organizations and government coordinated organizations, benefited from PNAE through the transfer of financial resources. Additionally, 30% of the PNAE budget is aimed at the direct purchase of family agriculture products for stimulating economic and sustainable community development. This feeding program covers 190,000,000 schools throughout Brazil and 45 million students per day, 200 days a year.

2.2. Rural Schools

Rural schools are a widespread reality in the region's school systems in all participating countries, with the exception of Costa Rica. Rural schools represent at least 30% of all educational establishments. This implies that population dispersion prevents the creation of economies of scale in the educational services, as educational attention requires many schools, each one taking care of a small number of students. At the same time, this situation leads to multi-grade schooling, limited school personnel, and is often to limited access to technology.

Challenges

As shown in Figure 4, Honduras and Nicaragua register the highest proportion of rural schools, followed by Guatemala, Paraguay and Panama, over 70% in both grades. For urban schools, Chile and the Dominican Republic have more than 30% concentration in private schools, in contrast to Costa Rica, whose public schools attend around 80%, both in third and sixth grade.

Graph 4. Percentage of school type distribution by country in third and sixth grade

Note: National definitions of rural schools, which are not comparable across countries, are used in the TERCE, but they show the school system configuration in each country.

Rural schools are also associated with increased poverty, where access to formal education may be limited. Due to geographic population dispersion, country schools are often numerous, have a low number of students, frequently with multi-grade classrooms, and they have less access to resources and infrastructure than urban schools. The average rural population in the TERCE-participating countries was 27% in 201, Guatemala was the country with the highest proportion of rural population (49.8%), followed by Honduras (47.3%) and Nicaragua (42.2%). The countries with the lowest proportion of rural residents were Argentina and Uruguay, with about 7%.

Figure 5 shows the TERCE socioeconomic level index for the different types of schools evaluated in the study, distinguishing between third and sixth grades. Rural schools clearly serve a lower socioeconomic population, public urban serve students in the middle of the indicator distribution and private schools students with a significantly higher level socioeconomic level. This suggests that that rural populations face more precarious conditions.

Coincidentally, rural schools have fewer resources, followed by urban public, and private schools have the greatest availability of resources. Moreover, high levels of socioeconomic segregation exist between schools, which means that schools serve relatively homogeneous populations, and children from low socioeconomic strata have little or no chance of meeting their counterparts from families with higher resources.

Graph 5. Socio-Economic Level Index for third and sixth grades by type


Source: UNESCO Institute of Statistics. Note: The percentage of rural population (relative to total population) is reported by countries based on national criteria and definitions. Therefore, the figures are valid within countries, but are not comparable as definitions of rural nature differ between countries.
Policy recommendations

There exists a consensus on the need to support students in vulnerable conditions and the schools that serve them (UNESCO, 2014). As noted below, these measures have already been adopted by some countries in the region; however, they need to keep being implemented, refined and redirected (Rivas, 2015). This is crucial for the large influence this type of school and student socio-economic level has on learning. By way of contextualization: while the 90’s were characterized by the implementation of compensation policies, directed at schools serving vulnerable populations, the 2000s could be generalized by conditional cash transfers and targeted at subjects. Explicit coordination between the two policies is clearly needed to improve learning. Supporting the demand (conditional transfer), i.e. to students and their families, improving economic conditions and the probabilities of attending and staying in school. However, this policy is insufficient if schools do not have the necessary teaching and organizational resources and capabilities to properly look after the country’s most disadvantaged populations. Countries should also promote innovative programs to strengthen supply in rural areas (compensatory policies), differentiating the concentration of rural schools and the main difficulties of working in this sector. This combination of programs focused on supply or demand has strengthened the creation of multiple programs in the region at the governmental level, as shown in Box 2, which gives three examples in recent years.

> Box 2. National Support Programs for Rural Schools

Several countries in the region have developed national programmes over the last decade, which aim to empower rural schools from different perspectives. Brazil, in 2010, established National Education Program for Agrarian Reform Policy and Education. Subsequently, the National Rural Education Program (Pronacampo) has been in progress from 2013, which aims to develop a national rural education policy, supporting these establishments with infrastructure (school construction, digital training, monetary school support), work with young people and adults (through programs for the promotion and access to technology), initial and ongoing teacher training (programs targeted to the rural context, such as “Escola da Terra”) and availability of specific student textbooks. Unlike previous interventions, this program has also been targeted at supporting children and young people living in Quilombos, native settlements with high levels of political and administrative independence. The program also incorporates other rural populations, such as the caïcaras and povos da floresta.

In contrast to Pronacampo, the Rural Education Project (PER) developed in Colombia, has placed a special focus on supporting those students who live in rural sectors. PER is oriented towards developing flexible pedagogical and educational strategies, incorporating students from vulnerable population, placing special emphasis on children who work and are affected by violence. The Rural education project includes support with school transportation, uniforms, food, care, psychosocial care, family mentoring, and school retention plans, among other actions plans. The Guatemalan initiative is also highlighted establishing an Itinerant Educational Modality between 2006 and 2010, which sought to answer rural problems. In that country a model was consolidated where the teacher
Recommendations for local implementation

An major aspect of these innovations does not necessarily depend, however, on the will or capacity at the central level. The particular characteristics of each region and the problems associated with rural life also involve Non-Governmental Organizations (NGO), local communities and schools themselves to strengthen processes for relating the activities and dynamics of rural areas to school processes. This can be seen in the case of the "Rural-Focus School" (Box 3) put in practice in a region of Colombia, where communities themselves, young people and adults, developed a collaborative education for enhancing autonomous and ecological productivity.

> Box 3. Rural Focussed High School, with emphasis on productive projects

The Rural-Focussed High School with an emphasis on Productive Projects is an intervention that has been realized in the town of Supia (Colombia) since 1997, and aims to support indigenous, farming and rural people who live in remote areas to enter university. This is done by developing productive projects in areas such as fish farming, poultry farming and horticulture, bakery, woodworking, leather working, construction, metal working and electricity. Unlike projects, this initiative is based on capabilities previously acquired by young people and adults, promoting the development of autonomous training processes for productive work, in an environment based on democracy and justice. The teaching strategies used are based on personal instruction processes in order to establish an Itinerant Educational Modality between 2006 and 2010, which seeks to respond to the problems of rural life. A model was consolidated in the country where the teacher gave alternate lessons to two pre-primary education groups of less than 20 students in rural regions. To develop this task, the teacher had the support of a community facilitator, who learning and leadership, which are complemented with technical practices in the students’ fields or properties; and in the development of general conflict resolution projects. According to the Innovemos Network report, the proposal has increased, at the student level, "in-context assistance, technical agricultural training on crops and species belonging to their land, zone and region, improvement in the student family's quality of life, organization of home gardens to improve family nutrition, offering education to indigenous and rural afro-Colombian populations, and registration of the program in the sustainable development plan for coffee ecoregion".


2.3. School attendance

A high percentage of Latin American students shows chronic rates of school truism. Students that miss 10% or more of the school year fall into this condition and are at educational risk (Balfanz & Byrnes, 2012). Students who frequently miss school lose countless learning opportunities and have lower academic results. The TERCE results, obtained from the student opinions (and therefore, possesses obvious limitations), indicate that class attendance is negatively related to academic achievement.

Challenges

Missing an average of two or more days a month is synonymous with chronic truism, as this represents 10% or more of the 20 class days that fit approximately into each month. Between 16 and 43% of third grade students in the region miss two or more school days a month, a number that varies between 13 and 39% for sixth grade students.

The phenomenon of chronic truism means that children have less time for learning and run the risk of leaving without any knowledge, which causes difficulties for achieving more complex curricular objectives requiring a solid basis. In addition, commitment to education and the social environment is reduced for these students, since truism is related to grade repetition, school dropout, weak emotional development and greater rates of isolation and alienation, increased risky behaviors and chances of adult unemployment.

Graph 6. Percentage of truism, according to the grade evaluated

The greatest chronic school truism (two or more days a month) is concentrated in rural and urban public schools. According to the observations in Graph 8, this varies between 14 and 50% for third grade and between 14 and 34% in sixth grade. The schools in these areas, therefore, need to specifically address truism, due to it detriment to learning.

**Graph 7.** Chronic school truism, according to school type

Students whose families receive state subsidies conditional to school attendance or participation in regular health checks show, on average, lower performance than students from families who do not receive the support. This finding, can be expected, since this type of aid in the region tends to be focused on the more vulnerable populations. In other words, it is not the state attendance subsidy that causes the lower academic results, but its correlation with student vulnerability, and shows the socioeconomic gap between student groups. Given the high levels of chronic truism in the region, educational and social policies need to be developed to help improve school attendance and increase time available for learning.

*Source: Own creation, using TERCE database.*
Policy recommendations

As already pointed out, school systems in the region are highly segregated in socio-economic terms, which requires specific policies for preventing the educational system from exacerbating the social and geographical segregation that occurs on the continent, and from that, helping to reduce school truism.

As recognized by Rivas (2015), strengthening public education is one of the biggest challenges in the fight against school segregation. TERCE proposes four measures for this aspect that can contribute to improving equality in attendance, access, student permanence and retention in schools. Firstly, all types of school or parents’ association fees that, explicitly or implicitly, can impose an economic barrier to poorer families, need to be eliminated (Lopez, 2014). One example is the Colombian initiative "Promundo Activo", developed at community level, and aimed at expanding educational coverage in disadvantaged sectors (Box 4).

Secondly, explicitly prohibiting direct or indirect selection processes is also considered important for schools receiving public resources. Policies for preventing selection have occasionally resulted in random selection systems for schools that have a greater demand than available places. Thirdly, it is important to strengthen and develop free food and/or school transport programs, which can help incentivize low-income families to send their children to school and expand their children's school choices. This way, the attendance policy is understood as “a secondary” effect of other complementary social policies, developed together. The government program “Healthy Peru” (Box 5) is a good example of a national policy developed from this perspective by a country where school truism was one of the main challenges, where the development of these activities came to be an important incentive for improving school attendance in the region.

> Box 4. Active Promundo

Active Promundo is a project implemented in the Soacha municipality (Colombia) between 1999 and 2001, that aimed to extend educational cover for pre-school and primary children in a situation of forced displacement. This initiative gave them free access to education, offering, in addition, social and psychological support to families. During 2001, “136 minors were inscribed, and educational attention began in April, supported by an internship team from the Universidad Nacional de Colombia for the areas of social work, psychology and nutrition and health. This team collaborated on the training and strengthening of the parents’ association, conducted processes for the psychosocial care and identification of socioeconomic, health and nutritional conditions of target population” (Innovemos Network, 2015). This way, the program expanded the Right to Education, supporting about 152 children and their families in a multi-faceted approach.

Recommendations for local implementation

Additionally, actions at school level can be very effective in encouraging student attendance. This is due to the teachers and principals, who have greater contact with and understanding of truism patterns occurring in their schools. Box 6 presents a continuous improvement innovation from the classroom, developed by a non-governmental organization, which has helped to drastically reduce truism and accounts for a wide range of relevant local actions.

> Box 5. Healthy Peru Program

Since January 2013, the Peruvian Ministries for Education, Health and Social Development and Inclusion have been implementing the Healthy Peru Program. The program aims to articulate and coordinate the different activities, policies and local services offered to schools for improving nutrition and ability development in children and young people. According to the Education for All Report, this delivers food (breakfast and snacks) to 2.6 million pre-school and primary children in more than 53,000 public educational institutions nationwide, and aims to increase student attendance in schools. In addition, from the second half of 2013, various municipalities incorporated new activities such as nutritional assessment and development of student measurements for anemia, eyesight, refractive errors and immunization status, complementing the food component with bio-psychosocial statistics. One objective of these measures is also to increase student attendance, especially vulnerable students.

Source: Go Forward Healthy Peru and Education for All Report (2015).

> Box 6. Increasing student attendance through continuous improvement in the classroom

Truism is a significant obstacle that can be lessened with suitable classroom interventions. Through continuous improvement strategies, a teacher from the Good Start Program, implemented in Chile in 2007, proposed improving daily attendance by increasing the motivation of parents and children. Process indicators were established to measure daily attendance and deliver bi-weekly attendance reports to parents. The election of an attendance king and queen was added, who had to have perfect attendance for the entire month. A paper daily attendance board was also created in the classroom, which is a very simple chart where every morning the students who came to class stuck a token (paper circle). In addition, every Monday, students who have attended all the previous week are rewarded with a star sticker.

Source: Varela and Durán (2016).
Finally, incentive and support programs are needed to help schools in the effective retention and learning development of the most vulnerable students. In some cases, this may involve developing early warning systems, which can prevent student dropout, incorporating monitoring and evaluation processes for the children's possible social and personal difficulties (UNESCO, 1998). In other cases, it implies generating special attention modalities, like the Second Opportunity Schools or the over-age projects, that deal with students who repeat grades or removed from the scholastic system. An example of this is the local initiative “Over-Age Project”, generated in Quilpue, Chile (Box 7). This example is interesting because it takes place in a semi-rural context with high levels of vulnerability.

> Box 7 Extra-age Project. Marginalized students in the system

In a school in the Quilpue sector (Chile), the Extra-age Project proposed delivering an educational option for young people who had left the school system and were in vulnerable and marginalized situation. This program was developed carried out between 1996 and 2000, using a a pedagogical strategy that included major changes in the national curriculum. The project defined the profiles and needs of overage students, creating learning activities, educational workshops and psycho-educational activities especially designed for this population. In this way, the project aimed, based on local experience, to reformulate classroom learning, taking a pedagogy of diversity as a conceptual base, and starting by establishing a collaboration contract between overage students, their families and the school, creating a high-impact pedagogical and curricular innovation. Therefore, activities based on student participation and teamwork are especially relevant. Preliminary evaluations have shown that school managed to re-enroll and integrate these students excluded from the education system, and at the same time, improved school teaching processes and generated greater self-esteem in overage students.


As can be appreciated, the proposed measures generate differences between the agents in school levels: principals, parents’ associations local transport, especially due to the economic difficulties in the implementation of these programs. Therefore, it is necessary that the State takes actions to reduce conflict and implement actions that promote, for example, free transportation systems. In addition to the above measures, actions could be included to ensure compliance with the policies issued, for example, through monitoring and evaluation systems of the above initiatives.
2.4. Child labour

Remunerated child labour is consistently associated with less educational opportunities (Post, 2011; Post & Pong, 2009). In general, children who work achieve lower learning outcomes, fewer years of schooling, are more likely to repeat a grade and also abandon formal education, creating a contextual phenomenon that has a powerful influence on the Right to Education in the region.

Challenges

The TERCE results, based on the student opinion, confirm the negative relationship between paid work and learning achievement.

In third grade, Honduras and the Dominican Republic have the highest percentage of students with paid work (nearly 12%). They are followed by Guatemala and Nicaragua, with 9%. It should be noted that the lowest figure is 5% in Brazil. In sixth grade, the highest percentages are in Honduras, Dominican Republic, Guatemala and Brazil, ranging between 7 and 8%. These figures suggest that third graders tend to report higher rates of child labor, even above those reported in household surveys, which could indicate some kind of bias, such as an incorrect understanding of the idea of work. However, the data for sixth graders is aligned with survey figures from countries in the region.

Graph 8. Percentage of students with paid work, according to grade evaluated

Source: Own elaboration using TERCE database.

Countries that have a more than 10% of working children in rural schools are Peru, Dominican Republic, Honduras, Guatemala and Nicaragua. Honduras and Guatemala lead this in this area for public urban schools with ranges higher than 12%. A higher percentage in private urban schools can only be seen in in Argentina, which differs from trends in the region, where these establishments concentrate the lowest rate of child labor. In sixth grade the gaps for students
widen, according to school type. More than 10% of all students in Peru and Brazil have paid work, compared with 7% of urban public schools and less than 3% in urban private schools. The Dominican Republic has the highest percentage of working students in urban private schools, at 6%.

Graph 9. Percentage of students with paid employment, according to school type

<table>
<thead>
<tr>
<th>Country</th>
<th>Third Grade</th>
<th>Sixth Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>10.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Brazil</td>
<td>8.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Chile</td>
<td>6.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Colombia</td>
<td>4.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td>0.5%</td>
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<tr>
<td>Mexico</td>
<td>0.5%</td>
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<tr>
<td>Nicaragua</td>
<td>0.5%</td>
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<tr>
<td>Nuevo Leon</td>
<td>0.5%</td>
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<td>Panama</td>
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<td>Paraguay</td>
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<td>Peru</td>
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<td>Dominican Rep.</td>
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<tr>
<td>Uruguay</td>
<td>0.5%</td>
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</tbody>
</table>

Source: Own creation, using TERCE database.

Policy recommendations

Conditional cash transfers are one of the most effective policies for counteracting child labour in those countries where this problem in widespread and acute. The rationale behind this instrument is simple. Among low-income families, especially among those living in rural areas, minors provide important economic income for the subsistence of the household, for example, through agricultural work. Confronted with this situation, school attendance and the participation in school activities represent an opportunity cost, children cannot work.
For this reason, this opportunity cost needs to be financed through a family subsidy, replacing lost revenues from the inability to work. In addition, subsidies are conditioned on the children attending the school with high regularity. The value of the subsidy is differentiated, and the its amount is greater when the students are older and there are also difference costs according to gender, giving more resources to the students of the gender that faces the greater opportunity cost of attending school.

This strategy, nevertheless, cannot be considered as the only way to encourage school processes for working children and children, since in many cases the cultural and social contexts reduce the effectiveness of the monetary transfer programs, which is especially evident in rural sectors, where in many cases a culture exists that disincentives the value of school and the educational system. In many other cases, these targeted policies need to be accompanied by socio-educational policies and initiatives that aim to support children and young people who confront the reality of child labor every day, similar to programs carried out in many countries that are in the initial development processes of their education systems as in El Salvador, Paraguay, Panama and Guatemala (Box 8).

> **Box 8. Socio-educational policies and initiatives related to Child Labour**

Over the last decade, Central American countries have designed and implemented educational programs oriented towards children and young workers. One example is the **Everyone Equal Program** in El Salvador since 2005, which, together with the international Labour Organization (ILO), has aimed to eradicate child labour and place students in the regular education system through academic support (“Leveling Rooms”) and awareness and training strategies for teachers, principals and assistant teacher about this phenomenon and its impact on children.

In the same vein, the **Embrace program**, carried out in Paraguay since 2005 by the National Secretary for Children and Adolescents. Its goal is to progressively reduce child labor on the streets and in its worst forms (landfills, clay working and sugar cane farming), contributing to overcoming poverty through psychosocial support strategies, aimed at increasing the attendance and continuity of children and young people in school.

Civil society initiatives have also been developed. For example, in Panama, **Casa Esperanza** (http://www.casaesperanza.org.pa/), a non-profit organization that has the mission of offering development opportunities to children and adolescents who live in conditions of poverty, especially opportunities that generate income for their families. An of its projects involves the orientation and training of children and young workers. The organization makes contact with children in work areas, whether in the informal sector or the rural agricultural sector, as well as offers attention in centers oriented towards eliminating the labour activity for children under 14 years and the improvement of them work conditions for children over 14, by progressively incorporating them into the regular school system.

From another point of view, the **center for families and to abused children (CAFNIMA)** in Guatemala also supports children and adolescents workers in alternative non-formal education. The
program accepts students at any time of the year, aiming to equalize them with an intensive plan approved by the National Education Ministry, through a proposal which collects working children's experiences and seeks to enhance the bond between students and the school community.


2.5. Gender Inequalities

In the region, there are also significant gender disparities. In terms of performance, the pattern observed shows that girls perform better in writing tests, while boys perform better in mathematics and science. The general trend in the region also reveals that the learning advantages in girls are explained by differences in observable variables, while advantages in boys remain even after considering the schools and students characteristics. Data obtained from TERCE suggest that the advantages in favor of girls may be due to certain attributes like the amount of time they dedicate to studying or doing homework; while the advantages in favor of boys seem to be related to socialization patterns that lead schools to offer more and better learning opportunities to males. These advantages are specifically influenced by the distribution of roles and tasks performed in Latin American societies which tend to favor men over women.

Challenges

In the case of mathematics, there is a widening of the gaps in favor of boys in sixth grade. In third grade, there are no significant differences in the learning outcomes of boys and girls in 13 out of the 16 education systems assessed. In general terms, the gender differences in academic achievements show a considerable variation across countries, and there is no clear pattern in the region.

There are two elements that could be associated with these results. Clearly, the countries in the region generate processes of differentiation of roles, distribution, and responsibility of healthcare, responsibilities, among others, that could be generating a gap in favor of boys. This phenomenon is related to the beliefs and expectations of teachers regarding their students in terms of learning and academic performance for each subject, which tend to establish that boys and girls have certain “innate” skills. Obviously, this is a part or a reflection of the construction of gender stereotypes in all the countries in the region.

These results are clearly observed in the data provided by TERCE. Although more than 70% of language teachers in third grade believe that the ease of learning both boys and girls is equal, a percentage varying between 7% and 30% (depending on the country) believes that girls more easily grasp learning concepts. The countries that stand out are The Dominican Republic (30%), Brazil (29%), Nicaragua (21%), and Uruguay and Argentina (20%).
However, when it comes to teaching mathematics to the same grade, teachers believe that boys grasp concepts more easily than girls. The percentage varies between 7% and 31% (depending on the country). Of the countries where this belief is most highly ingrained Brazil leads in holding to this belief, followed by Nicaragua with 21% and Chile with 18%.

Graph 10. Teaching beliefs of third grade by subject taught

More than 60% of teachers believe that, in the subject of language, both genders learn with equal ease. The countries leading these figures are Mexico (89%) and Guatemala (87%). Brazil is the country with the lowest percentage of teachers with this belief (67%) and attributes girls the highest achievement percentage (30%) of the region. Brazil is followed by Chile (26%), Panama (23%) and Dominican Republic (23%).

In mathematics in sixth grade, the opposite phenomenon is observed. At a regional level, more than 75% of teachers in this grade have the same expectations regarding the academic
performance from boys and girls. Depending on the country, between 8% and 20% of teachers note that math is easier for boys to learn. As they do in the subject of language, these varying expectations stand out in Brazil (20%), Colombia (17%), Costa Rica (17%). These expectations would have an impact on pedagogical interactions in the classroom as part of the hidden curriculum that depicts gender inequalities concerning the percentage of contents for further development in the post-secondary level.

Science appears with the greatest inclination towards equity in school learning (90%). The remaining 10% is unevenly distributed among nations that supply higher achievement expectations for boys, as in the case of Chile, Mexico, Panama and Uruguay. In the other countries, this figure leans toward the belief that it is easier for girls to learn science.

**Graph 11. Teaching beliefs of sixth grade by subject taught**
In the analysis of the composition of the genders of teachers in third grade, it is mainly female language teachers who claim that it is easier for girls to learn the subject in 8 out of 15 countries (Chile, Colombia, Costa Rica, Ecuador, Guatemala, Nicaragua, Peru and Uruguay). In Paraguay the percentage of male and female teachers who lean towards this belief is equivalent, while in Argentina, Brazil, Dominican Republic and Panama, it is mainly male teachers who believe that learning language comes easier to girls. For mathematics the distribution varies depending on the gender of teachers for third grade. Although in seven countries, female teachers consider it is easier for boys to learn the subject.

In sixth grade, the number of teachers who believe that it is easier for girls to learn language is higher in Argentina, Chile, Costa Rica, Dominican Republic, Guatemala, Mexico, Panama, Paraguay, and Uruguay. Mathematics teachers once again tilt the balance in boys’ favor.

**Graph 12.** Disaggregated beliefs by gender of language and mathematics teachers and grade
Teachers' beliefs on boys' ease of learning mathematics in third grade

Source: Compilation based on data supplied by TERCE.
Policy Recommendations

In line with this recommendation, we find what was stated in the regional review 2015 of Education for All, which has within its objectives working towards the “gender parity and equality in education” (UNESCO, 2014). Explicit educational policies are required to close these gaps, which aim to equate learning opportunities, and which must consider both the structural and process elements in education. In this regard, it is imperative for countries, in particular those that have already succeeded in reducing the gender gaps and those at intermediate and high levels of development of their education systems, to openly establish that these disparities are a public policy issue which concerns the education sector and the work of schools and teachers. A prioritization example is Brazil, which in recent years has implemented the innovative education program “Girls and Young Women in Exact Sciences, Engineering and Computing” (Box 9).

> Box 9. Girls and Young Women in Exact Sciences, Engineering and Computing

In order to increase the interest of women to pursue careers in science and technology, the Presidential Secretariat for Public Policy in conjunction with the Ministry of Science and Technology and Petrobras have implemented the program Girls and Young Women in Exact Sciences, Engineering and Computing. The program seeks to promote financial support for projects carried out by schools whose objective is encouraging women to take careers in exact sciences, engineering and computing in Brazil, thus arouse professional interest among high school female students. The program is part of a national education plan, which has as one of its purposes “encouraging women’s participation in postgraduate courses, particularly those related to the areas of engineering, mathematics, physics, chemistry, computing and others in the field of science”. A national open competition is held for implementing the projects selected in the program (320 projects were selected).


A careful review of curricula, textbooks, and educational materials is needed to explicitly address gender equity, showing men and women in diverse social roles equally. For example, in housework, child care, sciences development, political and business leaderships, to name a few. School and teachers play a key role, which is why they should be provided the right skills so that in their everyday practices they are guided by gender parity. Allocating tasks in the organization of the classroom with equal number of boys and girls in diverse activities, encouraging both genders to participate in classroom discussions and scientific activities, assigning leadership positions in group work and maintaining similar expectations that boys and girls can achieve good results across various disciplines. Initiatives carried out by the educational communities themselves (Box 10) can be valuable examples in developing processes of gender equity in the region.
Teacher preparation that promotes an inclusive and equitable gender perspective in the teaching processes should be part of their initial teacher education and service training. In addition, efforts need to be made to include parents in these kinds of activities, so that families also work in favor of gender equity. In summary, a clear and planned work at all levels of educational policy and practice is required in order to close gender-based learning disparities as they relate to socialization practices that are deeply rooted in cultures and schools tend to transmit them unintentionally (Aikman & Rao, 2012).

It also needs to be pointed out that the actions of the education system should focus not only on shrinking the learning gaps, but also on supporting equitable comprehensive development processes between boys and girls. This implies that schools, school systems and governments should promote actions and programs to deal with particular events mainly affecting women (especially the most vulnerable), such as prostitution, mistreatment, abuse and bullying. Although this is necessary for all the countries in the region, it is indispensable for those in Central America, which have higher rates of teenage pregnancy and prostitution. Guatemala can be considered an example in this regard since from 1991 develops psychosocial programs linked to these issues (Girls' Program, Scholarship Program for Indigenous Girls in Rural Areas, among others) and is currently catalyzed through the Comprehensive Strategy in Sexuality and Prevention of School Violence (Box 11).

> Box 10. Training school for women in non-traditional trades for their sex program

Developed in Mexico, the Program Training School for Women in Non-Traditional Trades for Their Sex aims to create an educational proposal to strengthen the leadership of women from urban areas and living in situations of marginalisation. Organized by various trade union entities, such as Mujeres Trabajadoras Unidas, A.C., Mujeres de Acción Sindical and MUTUAC-MAS, and with the support of the National Employment Department of the Secretary of Labor and Social Welfare, the program is focused on fighting against discrimination and occupational segregation through active learning in various technical trades with little traditional female presence, such as electricity, screen printing, bricklaying or plumbing. 


> Box 11. Integral strategy in sexuality and the prevention of school violence

Since 2010, the Ministry of Education in Guatemala puts into practice the Integral Strategy in Sexuality and Prevention of School Violence, which involves the Directorate General of Accreditation and Certification, the Directorate General of Special Education, the Directorate General of Assessment and Educational Research and the Gender Equity Unit with Ethnic Affiliation. All these entities coordinated for a strategy that seeks to generate a protocol for the identification, care and
referral of cases of violence, and guidelines for care and prevention of bullying, among others. In addition, protocols and school activities had been developed to provide comprehensive education on sexuality at the primary and intermediate levels of the education system, including teacher training on these matters.

Source: Ministry of Education in Guatemala (2012).

2.6. Indigenous peoples

Indigenous peoples are falling behind on all social indicators in South America in comparison with the non-indigenous population (Borja-Vega, Lunde, & García Moreno, 2007). This situation works against the achievement of greater gender equity educational outcomes. However, social disparities are only part of the challenges faced by indigenous peoples. They live in societies with dominant cultures that hold prejudices about indigenous peoples and where acts of discrimination are registered (Treviño, 2005). The various ways of learning and language between dominant cultures in the region and indigenous peoples place critical adaptability demands on education systems so that they can meet indigenous peoples’ educational needs properly.

Challenges

Indigenous students’ learning achievements are substantially lower in the various fields. Given the cultural diversity in the region, of particular concern is the fact that indigenous students, on average, tend to have lower achievements than non-indigenous students. Unfortunately, this finding is consistent with the previous assessments carried out by UNESCO in the region (Treviño et al., 2010).

The highest percentages of indigenous students in third and sixth grade (17 and 14% respectively) are registered in Paraguay, as declared by the students who participated in TERCE (Do You Belong to an Ethnic Group?), which can cause bias towards over- or under-representation, but that nevertheless provides an interesting comparative image of the diverse countries in the region. In the rest of the countries, this figure is lower than 10%. In Peru, Paraguay, Panama and Nicaragua the connection between achievements and belonging to indigenous peoples, which is measured by maternal ancestry and usage of indigenous language at home, is greater.
**Policy Recommendations**

Bridging the disparities between indigenous and non-indigenous is a major challenge for the educational and social policy. Indigenous peoples have been falling behind on most social indicators. However, the disparities between the two remain even after considering the differences in the socioeconomic level. This suggests that there are disadvantages likely associated with patterns of social relations in the diverse countries in the region, which manifest as differences of opportunity (Borja-Vega et al., 2007; Hall & Patrinos, 2006; Psacharopoulos & Patrinos, 1996). Education systems from the countries in the region have recognised their indigenous peoples in various laws and many have implemented educational policies for meeting the demands of diversity, commonly referred to as Intercultural Bilingual Education (López, 2001; López & Sichra, 2004). While some progress has been achieved in education service for indigenous peoples from legal and policy frameworks, the results of TERCE show that a number of challenges remain in the area of the equity of opportunity and results. In this regard, it is recommended to strengthen education for indigenous peoples respecting their culture and languages in at least three areas.

First, greater emphasis should be placed on teachers’ ability to provide proactive inclusion of indigenous children in the educational processes. Teacher education and service training programs should offer specific options for the inclusion of cultural and linguistic diversity at school. It is crucial that the teacher education assisting indigenous peoples provide the tools for teaching a second language so students would be able to make an appropriate transition between their mother tongue and the foreign language. It is worth mentioning that this can have two directions. On the one hand, in contexts where they seek to revitalise the indigenous language, this type of teaching skill would allow students to transit from the foreign language to the indigenous one. On the other hand, in contexts of intensive use of indigenous languages this type of teaching training would facilitate learning the foreign language without losing or belittling the indigenous language. In this regard, some countries that do not have bilingual teachers, such as Argentina, Ecuador, Chile and Colombia, have implemented the participation of indigenous cultural advisers to teach the language in schools through cultural referents of their ethnic group (UNESCO, 2014). However, it
is necessary to keep working in order to improve this type of strategy because there have been some difficulties. Some of the main implementation difficulties have been the lack of pedagogical preparation, the resistance and depreciation of schools and the lack of educational supplies in the languages with the lowest number of speakers (UNESCO, 2014). Therefore, some initiatives have sought to develop sensitization processes in conjunction with the school community to value indigenous culture and languages, as with the schools in San Juan de la Costa in southern Chile (Box 12). These are core strategies for countries and education systems that for one reason or another have undervalued the recovery and development of some of their indigenous languages.

> Box 12. Ce sumún recovery and the strengthening of identity

In the mid-1990s, a group of 17 institutions from San Juan de la Costa (Chile) initiated a process of Recovery, Valuation and Teaching of ce sumún, along with the strengthening of the cultural identity of The Huilliche. The project involved various dimensions of school work, such as the development of curricula adaptations that would allow contents about The Huilliche culture, the inclusion of school to the Intercultural Bilingual Education Program, the development of community-based projects in school (radio programs on ce sumún language) and writing workshops. In addition, the educational community of the institutions developed their own educational materials that resulted in about 3,500 booklets for the purpose of teaching the native language and make their culture known to students of Huilliche origins.


Secondly, it is necessary to develop diverse teaching and assessment methods that take account of the cultural characteristics of the indigenous population, which are associated with different ways of organizing the learning processes and their assessment (De Haan, 2000; Treviño, 2006). This implies promoting changes in teaching and assessment processes that make it possible to include cultural and linguistic elements of indigenous peoples (Box 13) in order to develop equitable educational processes that promote equal opportunities for all students. In this way, synergistic processes are formed between the school and the community, strengthening local programs and policies that are relevant for both social stakeholders.

> Box 13. Quechua Project in School

Developed in Peru, the Quechua Project in School seeks to build an active methodology for the teaching and learning of the Quechua language as a second language for Spanish-speaking children, emphasizing and relating their realities and interests with today’s world. To achieve targets, schools designed pedagogical activities for students to link contents with their cultural environment through diverse methodological guidelines that were used in the Quechua classes. In addition, educational materials for Quechua learning were developed, collecting other second language teaching experiences and educational practices. The existing qualitative assessment gives an account of the promising results of the program.
since it has allowed students to enjoy working with the guidelines and participate actively in class, whether it be interacting with the materials, role-playing situations and practicing dialogues and phrases from the textbooks, thus contributing to the development of the teachers’ self-efficacy and self-sufficiency.


Thirdly, it is essential to strengthen the curricular design and develop learning materials which should be available in every school to foster interculturality. Due to the dynamics of territorial migration, it is increasingly common to find indigenous students in urban schools and in areas that haven’t been recognized as indigenous. Schools must have the materials for a proper inclusion and they have to respond efficiently to educational challenges linked to cultural diversity, especially in those schools that have not had the experience of having native people. Likewise, it is important that all children be exposed and conscious about the cultural diversity in the region, primarily to avoid discriminatory practices. Some steps have been taken by Mexico, Chile and Peru, when they implemented indigenous language and cultural lessons, though mainly in schools which already have students that belong to an ethnic group (UNESCO, 2014). Some innovative examples are Escuela Viva Hekokatúva in Paraguay and Proyecto Territorios Narrados in Colombia which uses educational and pedagogical strategies to promote native language and culture (Box 14).

> Box 14. Government projects supporting indigenous people

Within the implementation of the educational reform in the past years, Paraguay has develop a project call Escuela Viva Hekokatúva. The pilot plan was meant to support and strengthen the process of bilingual education (Spanish-Guaraní) in Quinindy, Paraguari. The project involves two educational areas, with more than 300 children and 26 pre-primary and primary teachers. The preliminary findings showed a substantial progress in both Spanish and Guaraní in the following subjects: 1) Oral Production; 2) Oral Comprehension; 3) Reading Comprehension; and 4) Writing. Additionally, this educational proposal showed improvements in others educational indicators, such as increased school attendance, lower repetition rates, greater interaction among students and a higher parental involvement. The project Territorios Narrados in Colombia is another relevant experience of Intercultural Bilingual Education in the region. This project has been developed since 2010 and seeks to promote the communication skills among children and youths from ethnic groups, thus contribute to a linguistic regeneration, within the framework of their own education projects and those of ethnic people. For this purpose, the focus was placed in the elaboration of bilingual texts, the development of training processes for the ethnic and educational communities through companion pedagogical and audiovisual workshops and the establishment of a working network in language, culture and education.

This chapter reviews the characteristics of school systems that influence the educational opportunities for children attending primary school in Latin America and that consider the main attributes of the school system. The analysis is divided in two main sections. Firstly, the structural conditions and the main attributes of the school system are checked, particularly with regards to the organization of formal education, evidence-based decision making and educational financing. Secondly, it analyzes factors related to learning in accordance with TERCE.

Some of the features related to the school system organization that are reviewed right away are: the compulsory nature and structure of the school system; the educational needs in the early infancy; the process of repetition and being lagging behind in grade; training of educational personnel; evidence-based decision making; information and communication technologies, and financing.
3.1. **Structural features of the educational system**

The structural features of the school system create operating conditions that may significantly affect the educational opportunities on different kinds of schools and student’s result. This section discusses the school system's organization, financing and evidence-based decision making.

3.1.1. **Organization and compulsory nature of education**

Also the structure and functioning of school systems poses particular challenges and terms to the different countries in the region. The current school system obey to the historical dynamics of the local contexts whose social, political and economic factors have continuously shaped the educational services. This section analyses the current state of school systems, taking into account some basic features that are related to specific system challenges according to the result of TERCE.

The structure of school systems and, in particular, the compulsory education is a basic feature of the educational institution and, gives into account the challenges that face the education policies.

In general, the structure of school systems in Latin America and the Caribbean is quite diverse. The countries displays a vast heterogeneity regarding the amount of school years and the transition between different school levels, secondary school organization and the changes made to school structure over the past years (see Table 4).

In addition to establish legal requirements to education policies, years of compulsory school represents the scholar system's goals that are compelled to achieve regarding the range and the amount of school years. On average, the countries that participate in TERCE have 12 compulsory school years, with a range from 9 to 14 years depending on the country. Nicaragua is an exception, where there are only six years of compulsory school, although it has been legalized one more compulsory year in preschool. In general, it is observed that between 2006 (SERCE’s study) and 2013 (TERCE) eight of the fifteen countries that participate in both studies had increased their years of compulsory school on a two-year average.

By 2013, preschool had at least one compulsory year in most of the countries, Chile, Guatemala and Nicaragua been the exception. In this regard, Brazil, Costa Rica, Ecuador, 

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*The information below corresponds to 2013, in which period TERCE’s study was applied. For detailed information on school system structure in the region see the documents elaborated by UNESCO institute for statics in http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx

9 In Chile, kindergarten was made compulsory in 2015, which represent the last year of preschool.

10 In November 2009, It was agreed that compulsory education in Brazil would increased to 14 years and that the States and Municipalities should conclude the process of gradual extension of compulsory school by 2016.
Honduras, Paraguay and Uruguay have extended the compulsory preschool education over the past years. Primary is mandatory in every country studied, whereas it can be observed that the secondary education has major differences regarding compulsion. For example, Honduras\textsuperscript{11}, Nicaragua and the Dominican Republic don't have any compulsory year in secondary, although, in the later case it is in the process of being implemented a reform that will spread education till 17 mandatory years since 2010. In Costa Rica, Guatemala, Mexico and Paraguay is compulsory to attend to lower secondary, while upper secondary is optional. In Argentina, Chile and Uruguay all the secondary is compulsory.

Formal education begins before the age of five in countries like Argentina, Colombia, Ecuador, Mexico, Peru, Uruguay and the Dominican Republic, while in Nicaragua and Paraguay it begins from that age. Despite this, Primary school begins at six years old in all observed countries, except in Guatemala and Costa Rica, where it begins at seven years old. The length of this school level vary between five (Brazil and Colombia) and nine years (Honduras and Paraguay), although the typical duration is six years (Argentina, Costa Rica, Guatemala, Mexico, Nicaragua, Panama, Peru and Uruguay). This implies that in most of the observed countries, students enters secondary education at 12 years old, while in Brazil and Colombia they enter one year before, and in Honduras and Paraguay they only enter at 15 years old.

\textbf{Table 4.} Years of compulsory education in countries participating in TERCE, 2013

<table>
<thead>
<tr>
<th>Countries</th>
<th>Years</th>
<th>Preschool</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6</td>
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<tr>
<td>Brazil</td>
<td>14</td>
<td>2</td>
<td>5</td>
<td>7</td>
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<tr>
<td>Chile</td>
<td>13</td>
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<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Colombia</td>
<td>12</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
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<td>13</td>
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<td>6</td>
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<td>6</td>
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<td>3</td>
</tr>
<tr>
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<td>0</td>
</tr>
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<td>Mexico</td>
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<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Nicaragua</td>
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<td>0</td>
<td>6</td>
<td>0</td>
</tr>
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<td>Panama</td>
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<td>2</td>
<td>6</td>
<td>3</td>
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<td>Paraguay</td>
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<td>9</td>
<td>3</td>
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<td>Peru</td>
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<td>1</td>
<td>6</td>
<td>5</td>
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<tr>
<td>Dominican Rep.</td>
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</tr>
<tr>
<td>Uruguay</td>
<td>14</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

\textit{Source:} (Treviño, Fraser, \textit{et al.}, 2015; Treviño, Place, \& Chávez, 2013).

\textsuperscript{11} In January 2012 Honduras enacted a law to enforce secondary education, which was implemented in 2014.
Although there are significant differences in the structure of a country’s educational systems, the review of public participation in primary school allows seeing the attention degree in this educational level that is compulsory in every country of the region.

Data shows that in the last years the region have experienced a significant increase in the net enrolment rate in primary school, which represents a significant improvement in this educational level. Between 2009 and 2013 it can be observed different trends in the net enrolment rate in primary school (see Table 5). A large majority of countries exceeds 90% of enrolment in the official age group. When disaggregating data by country, it can be observe differences over 15% between the countries with the greater (Uruguay) and lower (Paraguay) primary coverage.

### Table 5. Net enrolment rate in primary education, both sexes (%)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
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</tbody>
</table>

Note: It is important to consider that the adjusted net enrolment rate contrast school age population with the number of boys and girls in this age group that attend schools. In some cases, it is possible that factors such as a late entry or over-aged leads to differences in gross enrolment rate, which compares school age population with attending school population regardless of their age.


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**Note:** Net enrolment rate measures the percentage of school age population that actually take part in the school system. According to the given definition, this rate not only represents enrolment in primary age group, but also boys and girls of primary age that attend secondary.

**Note:** The official age of every educational level is defined by each country independently.
Despite the progress in net enrolment rate in primary, it can be observed that between 5 to 14% of school age population doesn’t take part in the school system. It seems probable that this group includes most vulnerable students or the ones with greatest access difficulties either for their social background, special educational need or because they live in remote areas, to mention a few possibilities.

**Policy recommendations**

The organization of school systems is linked to student’s educational opportunities in at least two ways. On one hand, by defining population’s compulsory school years, States explicitly commit to provide the means to achieve this goal. The compulsory nature of education also provides legal basis for public policies and encourage local authorities to seek different ways to reach the threshold established by each society. Consequently, it is important that countries create social, political and legal conditions to enhance secondary education.

On the other hand, the school system structure defines transitions between school levels and the meaning of each of them. In the case of transitions, it is common that the most vulnerable students leaving early their studies if this imply changing school and/or travelling. This phenomenon is intensified when the transition brings a separation among students into different kinds of school or different educational choices inside a school depending on prior academic performance or entrance exam. The existence of study programs, express or implied, tend to make more rigid the possibilities to offer better school opportunities to low performance students and to strengthen student’s socio-economic and academic differences (Treviño, Valenzuela & Villalobos, 2013). Taking into account time perspective inside educational transition cycles that each country established as compulsory, Governments can develop programs supporting families that are under the process of induction and election of an establishment, thus encouraging a effective and efficient transition process, especially (but not only) through local initiatives, just like the Uruguayan government has attempted, by means of the “Plan de Transito entre Ciclos Educativos (Transfer Plan between Educational Cycles)” (Box 15).

> **Box 15. Transfer Plan between Educational Cycles**

During 2012 the Uruguayan government created the Transfer Plan between Educational Cycles (PTCE by its Spanish acronym). This plan arises from maintenance and deepening of high repetition rate diagnosis during the last decade (with nearly 10% of students in their first school years) added to serious problems of over-age and educational lagging. This leads an important part of students to leave the formal educational system before reaching the next level of education (secondary school). PTCE’s aim is to support most vulnerable primary students in developing a successful insertion in the secondary education, with the purpose that they can develop a continuing and fully educational career. For that purpose, PTCE based in three guiding principles: 1) design and implementation based on participation; 2) reinforcement of the existing links between
primary and secondary education, creating functioning operating spaces; and 3) the connection between formal school system and local educational establishments. The program is structured in three work phases: a) the second half of the sixth (last) year of primary, in which information and social-psychological support towards students are developed; b) the holiday seasons, where, through activities like school camps, the link with the school system is promoted and c) the first half of the first secondary year, in which students are given pedagogical support and a work is made with both primary and secondary teachers.

Source: Villalobos (2013).

School levels are also defined according to their structure and each country’s traditions. A typical example of this situation occurs in the upper secondary school that is before higher education. In some contexts (like in Guatemala and Ecuador) upper secondary schools are considered as a level with selective purpose, which leads to high levels of failure and desertion, especially to disadvantaged students, therefore, the countries in the region must rethink their relevance and usefulness in increasing the school system coverage. It is likewise important to re-discuss the difference between a career and technical education versus humanistic education present in most countries in the region (Chile, Colombia, Argentina, Mexico, Peru, Costa Rica, Uruguay) this “vocational” gap masks inequities and differences in educational opportunity. In most of the countries, the support, facilities and teachers in technical education has less resources, which generates difference in the short, medium and long term where it comes to academic and labor terms. Finally, it is interesting to evaluate what happens in the early education, that since its beginning has kept a distinction with primary education (Fuller, 2007). In many contexts, the parties in early education resist the use of the word “preschool”, because they consider that early education has their own definition and purposes that not necessarily means getting children into school. These elements must be considered as key aspects to improve the school system structure.

3.1.2. Financing

Poverty and inequality are some factors that hamper efficacy of educational policies and they require resource channeling to mitigate the effects of these economic barriers. Therefore, it is necessary to analyze the size of the region’s economies, using the Gross Domestic Product (GDP) per capita of each country. This indicator shows a country economic capacity that is directly related to resource availability to invest in Education. The greater the GDP per capita, the greater the resources available for education.

In many cases, countries in the region have levels on GDP per capita far from developed countries. As shown in Table 4. There is a wide range on GDP per capita among countries. The value of this indicator for 2013 is more than 18 thousand dollar in Chile, Uruguay and Panama that are the countries with the highest income per capita in the region. Nicaragua is slightly above 4,400 dollar per capita. In contrast, it suffices to note that the average income per capita in OECD countries in 2014 was 37,905 dollars (OECD, 2014).
The levels of per capita income in the region increased significantly due to a period of economic dynamism between 2006 and 2013\textsuperscript{14}, although, nowadays there is an economic slowdown that affects everyone and hence (although in a minor extent) the countries in Latin America. Even so and in global terms, during this period domestic production experience a widespread and sustained growth. All the countries involved increased their GDP per capita, although there was heterogeneity in the growth. Panama, Peru and Uruguay stand out for a sharp growth in theirs economy (Table 6). While Guatemala, Honduras and Mexico show the lowest increase in this period. This growth patterns leaves Guatemala and Honduras in a situation of scarce resources, given that are countries with a low GDP per capita and a low dynamism in growth. Instead Nicaragua and Paraguay, even though they have a lower economic production than the rest of the countries, they showed a positive increased under the analysed period.

However, the economic income levels in the region are far from the ones in developed countries, and even though during the past decade there have been raised a significant reduction of the poverty rate, it remains a wide and persisting inequality. The school system is inserted in this mixed picture.

### Table 6. Gross domestic product per capita PPPs

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>…</td>
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</tr>
</tbody>
</table>

Source: Own production, based on data of the World Bank.

Note: GDP per purchasing power parity (PPP) is the Gross Domestic Product changed converted to US dollars using purchasing power parity rates.

\textsuperscript{14} Particularly, between the implementation years of the LLECE’s Second Comparative and Explanatory Regional Study (SERCE) in 2006 and TERCE (2013).

\textsuperscript{15} Indicator without available information for Argentina over the years considered.
Naturally, inequality and poverty levels affect students’ learning opportunities that finally transform into educational inequalities.

The education expenditure is a key indicator that describes the magnitude of a society effort to ensure the right to education. This is measured through the educational expenditure as a GDP percentage and the percentage of the total public expenditure.

The 2000 decade was marked by a decrease of the poverty and indigence levels in most of the countries in the region. During this period, the region experience a decrease in inequality levels, strengthening of the democratic system, the implementation of redistributive policies and the reinforcement of labour institution (Lustig & Lopez-Calva, 2009; Rivas, 2015). All this accompanied by a GDP growth of 3.8% in annual terms between 2002 and 2011.

These progress would be linked to educative policies implemented in the region over the past years, because it has been evident a significant increase and increased progressivity of the public spending (CEPAL, 2013). Between 2010 and 2011, the social expenditure, that includes education, has also been increased as a percentage of GDP (19.2%) and as a percentage of the total public expenditure (65.9%), thought a greater State involvement in the provision of education as a right.

Within country’s fiscal efforts, the educational investment showed one of the highest increases. The educational expenditure exceeds 4% of GDP (Table 7) in most of the countries, and in some of them the educational investment reaches 15% of the total public expenditure (see Table 8). The growth in spending on education is mainly explained by the expansion of the services to underserved populations (Bellei, 2013), as noted above in relation to an increase in the enrolment rate. This means that the inversion effort has been concentrated in enhancing educational access to disadvantaged and hard to reach population.

There are major differences in terms of the educational investment that are carried out by the different governments. By 2013, in Guatemala, Peru and the Dominican Republic the education expenditure did not reach 3% of GDP, while Argentina, Brazil, Costa Rica and Mexico exceeded 5%. At the same time, it can be seen disparities in this percentage evolution over time. In extreme cases, Costa Rica has increased over two percentage points in its educational expenditure between 2006 and 2013, while Guatemala haven’t had major variation in this period.
Countries with relatively low numbers in education expenditure as a percentage of GDP - like Guatemala and the Dominican Republic - show a high educational investment with regards to total public expenditure of a government. Particularly the Dominican Republic where a marked increase in this indicator is registered over the last years (see Table 7).

Table 7. Education expenditure as a percentage of GDP (%)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
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<td>3.65</td>
<td>3.90</td>
<td>4.34</td>
<td>4.89</td>
<td>4.61</td>
<td>4.99</td>
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<td>5.74</td>
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<td>4.24</td>
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<td>4.07</td>
<td>4.57</td>
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</tr>
<tr>
<td>Colombia</td>
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<td>4.06</td>
<td>3.91</td>
<td>4.75</td>
<td>4.83</td>
<td>4.46</td>
<td>4.39</td>
<td>4.90</td>
<td>4.67</td>
</tr>
<tr>
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<td>6.28</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>6.87</td>
<td>...</td>
</tr>
<tr>
<td>Ecuador</td>
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<td>...</td>
<td>...</td>
<td>4.08</td>
<td>4.31</td>
<td>4.18</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
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<td>3.04</td>
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<td>2.80</td>
<td>2.92</td>
<td>2.96</td>
<td>2.84</td>
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<tr>
<td>Honduras</td>
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<td>...</td>
<td>...</td>
<td>...</td>
<td>5.87</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.74</td>
<td>4.73</td>
<td>4.86</td>
<td>5.22</td>
<td>5.19</td>
<td>5.15</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Nicaragua</td>
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<td>3.54</td>
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<td>...</td>
<td>3.29</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Paraguay</td>
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<td>3.55</td>
<td>...</td>
<td>...</td>
<td>3.77</td>
<td>4.97</td>
<td>4.96</td>
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</tr>
<tr>
<td>Peru</td>
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<td>2.63</td>
<td>2.84</td>
<td>3.13</td>
<td>2.85</td>
<td>2.68</td>
<td>2.92</td>
<td>3.28</td>
<td>3.66</td>
</tr>
<tr>
<td>Dominican Republic</td>
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</tr>
<tr>
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<td>2.88</td>
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<td>...</td>
<td>4.36</td>
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</tr>
</tbody>
</table>


Countries with relatively low numbers in education expenditure as a percentage of GDP - like Guatemala and the Dominican Republic - show a high educational investment with regards to total public expenditure of a government. Particularly the Dominican Republic where a marked increase in this indicator is registered over the last years (see Table 7).

Table 8. Public expenditure on education as a percentage of total government expenditure (%)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
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<td>16.63</td>
<td>16.61</td>
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<td>15.73</td>
<td>15.06</td>
<td>15.09</td>
<td>...</td>
</tr>
<tr>
<td>Brazil</td>
<td>12.42</td>
<td>13.22</td>
<td>14.08</td>
<td>14.72</td>
<td>14.56</td>
<td>15.27</td>
<td>15.57</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Chile</td>
<td>16.16</td>
<td>16.65</td>
<td>17.48</td>
<td>17.19</td>
<td>17.51</td>
<td>17.50</td>
<td>19.28</td>
<td>19.07</td>
<td>...</td>
</tr>
<tr>
<td>Colombia</td>
<td>13.77</td>
<td>14.48</td>
<td>14.68</td>
<td>16.08</td>
<td>16.42</td>
<td>15.53</td>
<td>15.51</td>
<td>16.91</td>
<td>15.86</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
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<tr>
<td>Ecuador</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>11.75</td>
<td>10.96</td>
<td>10.35</td>
<td>...</td>
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</tr>
<tr>
<td>Guatemala</td>
<td>20.34</td>
<td>21.28</td>
<td>23.35</td>
<td>...</td>
<td>19.30</td>
<td>20.25</td>
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<td>Honduras</td>
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<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>19.23</td>
<td>...</td>
</tr>
<tr>
<td>Mexico</td>
<td>20.75</td>
<td>20.25</td>
<td>18.80</td>
<td>18.47</td>
<td>19.43</td>
<td>19.01</td>
<td>...</td>
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<td>...</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>...</td>
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<td>...</td>
<td>...</td>
<td>22.75</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Panama</td>
<td>...</td>
<td>...</td>
<td>14.89</td>
<td>...</td>
<td>...</td>
<td>13.02</td>
<td>...</td>
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<tr>
<td>Paraguay</td>
<td>...</td>
<td>19.33</td>
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<td>...</td>
<td>18.72</td>
<td>23.25</td>
<td>19.60</td>
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<tr>
<td>Dominican Republic</td>
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<td>12.58</td>
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<td>...</td>
</tr>
<tr>
<td>Uruguay</td>
<td>9.90</td>
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<td>...</td>
<td>...</td>
<td>14.93</td>
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</tr>
</tbody>
</table>

The economic progress of countries has been a marked increase of the public expenditure on education that resulted in a cover increase. During the past seven years, most of the countries had increased the amount of compulsory school year, ensuring their provision through the State. These efforts can be observed in a steady increase in preschool enrolment at regional level. In spite of progress, some challenges still remains, as primary education, with an enlargement in coverage and access. Likewise, a higher public participation in education raise the challenge of enhancing resources and educational processes focused on the comprehensive development of students' capacity building that allows them to exercise their rights within a society.

Participation rates are influenced by both a country economic capacity to invest in education and by the size of the school-age population. On this matter, the region has experienced a demographic transition that involve a progressive aging of the population, marked by an increase in the life expectancy and a decline in the birth rates. By 1980, under 14 years old population corresponded, on average, to a 40% of the total population. By 2013, this figure decline to a 30%, and even in countries like Chile and Uruguay it approached a 20%. Although this change in the population age structure has been accelerated at global level, is a heterogeneous process among countries. As an example, 30 years ago in Guatemala and Mexico, under 14 years old population was near 45%. By 2013 this population was only a 40% in Guatemala and a 28% in Mexico. This demographic transition implies that as a country's economy grows and target population declines, more resources per capita can be addressed for each student at school levels.

Finally, it is necessary to consider that 90% of the public expenditure on education is addressed to running cost in most of the countries in the region, which leaves a little scope to development and investment expenditures (ECLAC-OEI, 2009). This can be understood in two ways. On one side, the high share on running cost may be a sign of a need to increase the amount of resources dedicated to education, in order to have a greater flexibility in terms of budget distribution. On the other side, the high percentage of running cost reflects the nature of the educational system's organization, which needs an intensive use of human resources (teachers) to meet the demands of the educational coverage.

Policy recommendations

With respects to financing it can be considered at least four criterions. The first is related with the amount of educational public resources; the second is related to funding formulas and the consideration of specific situations; third refers to the use of management indicators to the allocation and accountability of resources; and fourth is laws related to financing.

Regarding the amount of resources aimed to education, UNESCO’s recent recommendations indicate that countries should invest, at least, 6% of GDP and/or 20% of the total public budget (EFA-GMR, 2014). But while the financing amount is important, the mere provision of greater resources to educational systems doesn’t ensure a teaching ability improvement in the educational system, neither a bigger offer of student’s learning opportunities, nor an improvement in

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16 Colombia, Guatemala, Paraguay and Uruguay are exceptions to this phenomenon. Brazil data are not reported.
17 According to the World Bank (http://datos.bancomundial.org/)
learning outcomes and equity rates. As in other cases, investment is a necessary condition, but is not enough to an improvement in educational quality. An increase investment must be linked to specific targets and goals. A resource growth, simultaneously, requires the development of specific policies that focus on meeting targets. On the contrary, it can fall down to, what some authors have called a “spray and pray” scheme (Rivas, 2015), referring to a fund increase without a clear strategy to improve the quality and equity of the system.

The second criterion corresponds to the creation of general financing formulae that, in addition, improves when contemplating particularities of education systems. Two examples about the type of consideration that needs to be taken in regards to the financing formulae will suffice. In Ontario, Canada, different types of elements are taken into consideration for financing: the number of students, schools’ fixed and extra costs, special purposes funds, special needs education financing, funds for learning a second language, specific resources for students from indigenous peoples, funds to strengthen educational opportunities, financing to improve coexistence inside priority schools, school transport payment, resources for school facilities maintenance and funds to better teacher’s capacities through continuing training programs, to mention some (MoE, 2011). On the other hand, in Europe, even though there is a high variability in the financing formulae, it was possible to establish three general ways in which the distribution of school resources is organized. First, there are systems that have transparent financing formulae known by everyone. The second one is through budget proposals that schools send to proper authorities and are subject to approval. The third way consists on the discretionary determination of resources on behalf of the authorities, where each year it holds the absolute power to determine the budget sent to every school. The most common form in which schools are financed in Europe is through financing formulae established by the higher rank authorities for fixed costs, while capital expenditure are done with a more elevated level of discretion from the local authorities (Eurydice, 2014).

From the previous examples, it is recommended that education systems establish transparent financing formulae, that take into account the school systems peculiarities (for example, special needs education, schools in rural context, education for indigenous peoples) and also have schemes that allow financing fixed and extra costs when needed.

The third criterion is related to the type of indicators used to assign resources, which can be from inputs or results. Again, resorting to Europe, in most of the countries it has been established a system that uses input data to determine financing, such as the number of students, special needs, teaching of the local language to those who haven’t learned it and geographical or demographic particularities (Eurydice, 2014). This type of formulae is similar to the example about Ontario. The financing formulae linked to the output indicators are not of general use in primary education. However, in countries such as the Netherlands and England, some performance criterion are adopted to assign part of the resources to the schools. These financing systems based on performance are linked to incentives or penalties, which in certain cases can have unexpected side effects that generate inequality, for example, when schools compete for funds without considering the population they attend to and the capacities installed in them. This may lead to schools attending the more unprivileged to have less possibilities of getting financing (Eurydice, 2014).
Because of this, using performance indicators to assign resources is problematic. It is suggested that a combination of output indicators is used and, in case some performance indicators are included as well, they should be bonded to a school attendance commitment. Performance financing oriented systems should use school progress indicators throughout the school years instead of making a comparison that set schools into a competition between them. This means that schools are capable of establishing specific improvement goals in relation to their initial situation (Eurydice, 2014).

The last aspect concerns laws associated to financing. In this sense, the main recommendation is that the countries of the region can count on fiscal commitments or pacts that are built upon State politics regarding school systems financing. On one side, this would allow not to be dependent on politics or current government, consolidating a medium sized term policy. Besides, developing these fiscal pacts would enable the organization of state coffers, so as to give a better response in times of economic or social crisis. It is worth mentioning that, in order to ensure stable financing, some countries of the region (Argentina, Colombia, Costa Rica, Ecuador and Paraguay) have Constitutions which establish a minimum amount of public financing for Education or Health (ECLAC, 2016).

Chile has implemented a preferential school subsidy system, oriented to schools that attend to vulnerable people and, therefore, have less education opportunities, which seems like an interesting implementation of these recommendations in the Latin American context. Box 16 presents this example, showing the main peculiarities and characteristics of this subsidy.

> Box 16. Preferential School Subsidy

The Law about Preferential School Subsidy (SEP) from 2008 can be understood as one of the financing policies with highest approval in Chile for the last decades. In conceptual terms, SEP poses as a specific initiative although of great educational reach, permanent character and elevated financial sums which can be understood in a triple dimension: 1) in economic terms, as a measurement in favor of public financing that looks for higher equity in education; 2) in terms of educational process, as a new paradigm about how school improvement can be achieved; and 3) in terms of educational policy, as an advance in the new rules of the game for the advocates and school establishments. The Law that creates the Preferential School Subsidy defines its aim as “to compensate the social inequities based on origin that affect boys and girls from the more modest backgrounds, delivering an additional contribution to the establishments that take them in and committing to a strategy of educational improvement with them” (National Congress of Chile, 2008), handing
3.1.3. Evidence based decision making

The region has immensely moved forward in producing data related to the operation of school systems. However, these are not always used when making decisions. This phenomenon seems to be due to a mixture of cultural practices, lack of technical capacities and the absence of inclusion among systems (Elacqua & Alves, 2014).

Acknowledging the abundance of information present in school systems, this section puts emphasis on student evaluation systems, for they produce evidence about learning achievements and the aspects that account for it. In fact, these aspects sometimes could be given by information gathered from the rest of the information systems. On the other hand, student evaluation systems are a source of constant educational debate in relation to the usage and consequences the results have on students, teachers, schools and school systems.

Since the mid-1990s, the availability of more information about learning results allowed to expand the concept of equity and go beyond access and graduation, and gave higher importance in political conversations to the challenges school systems have to face and the social policies to level students' learning from different social backgrounds. In the most unequal region of the world, as it is Latin America, information about students learning results can help to better understand the educational phenomena and to offer more adequate solutions. This, as long as the information is transformed into knowledge and that knowledge is used in the decision making of educational policies.

It is necessary to inform that there are different perspectives towards the use of standardized tests results, which must be considered when designing education policies. Here we mention three. The first perspective indicates the use of standardized evaluations and test results to be held accountable at schools can help improving the education’s quality. This happens, particularly, in education systems where teaching skills are low or variable. In these contexts, the use of evaluations with accountability purposes in schools could be of help to ensure a minimal level of quality among schools and monitor their development (Mourshed et al., 2010). In fact, it has been said that between the years 2000 and 2015 education policies have made progress in terms of learning results thanks to the “pincer effect” the distribution of free text books and the
implementation of standardized tests has had. So, on one side, the books and material guided teachers and students’ work towards their curriculum, while the evaluation systems put pressure on reaching curricular goals (Rivas, 2015). This approach about the use of results can bring some gains in terms of educational development while education systems are still working on their teaching skills. However, the use of academic results as means to press schools can cause serious unwanted consequences in a medium sized term, as can be seen next.

The second perspective regarding the usage of standardized exams results states that external accountability gravely interferes in different aspects of educational processes. As for teaching quality, international evidence shows accountability leads to the restriction of educational contents only towards what is being evaluated, to teaching being centered on teachers, to generating highly prescriptive curriculums and to a fragmentation in knowledge (Au, 2007; Diamond & Spillane, 2004; Koretz, 2008). This type of accountability systems can also affect the motivation in the people from the school setting and provoke skepticism about the effectiveness of these measures to improve learning (Firestone, 2014; Mintrop, 2004a; Mintrop & Trujillo, 2007). In addition, schools face great pressure to avoid fines (Mintrop, 2004b) and those with most institutional frailty and lower teaching skills frequently turn to short term strategies to improve their results without necessarily focusing on developing the required skills for a sustained improvement.

The third perspective in relation to the use of standardized exams data suggests that these are of great help for monitoring the development of education systems worldwide. In this case, results say that both national and international evaluations are of use to gauge the pulse of education systems and to identify the most prominent challenges. From this perspective, the findings about evaluations are useful to elaborate diagnoses which can be complemented with additional information to improve decision making. Accountability, in this case, falls to the authorities who are in charge of generating policies for overcoming education challenges.

Data that authorities collect from educational systems correspond to a wide range of systems. As it can be seen in Table 9, the following systems have been identified in the region (Elacqua & Alves, 2014): a) of school data; b) of information for educational management; c) of information for teacher’s management; d) of financial information; e) of school examination and evaluation; f) of teacher’s evaluation; g) of compulsory national exams; and h) of students evaluation. The information these different systems produce can be of great help for the diagnosis and monitoring of school programs, policies and systems.

All of the participant countries in TERCE have school data systems, educational management systems (with the exception of Panama, where they have occasional tests) and student evaluation systems. The development of information systems for teacher’s management, financial management, school inspection and evaluation and teacher’s evaluation are less general. It brings attention that only Chile has a financial management system which is related to the type of financing (on demand subsidy based on attendance) that operates in that country.
Table 9. Educational information systems of countries in the region

<table>
<thead>
<tr>
<th>Countries</th>
<th>School data</th>
<th>Educational management</th>
<th>Teacher’s management</th>
<th>Financial management</th>
<th>School inspection and evaluation</th>
<th>Teacher Evaluation</th>
<th>National Exams</th>
<th>Student’s evaluation</th>
</tr>
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<tbody>
<tr>
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<tr>
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<td>Paraguay</td>
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<tr>
<td>Dominican Rep.</td>
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<tr>
<td>Uruguay</td>
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<td>✓</td>
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</tbody>
</table>

Source: adapted from (Elacqua & Alves, 2014).

The main challenges in relation to the use of information for decision making in the region are related to legal frameworks, institutional designs, technical capacities and, the distribution and usage of information for decision making.

Most countries of the region lack legal frameworks that regulate the elaboration and use of information. Transparency laws are associated to them in countries where these regulations do exist (such as Brazil, Chile and Mexico). In relation to institutional designs, the subject about student evaluation is particularly important. Some countries have developed autonomous or semi-autonomous agencies that are responsible for collecting data about the school’s quality. Institutional arrangements are important because they grant independence and legitimacy to the entities in charge of evaluation and thus, avoid being subject to political pressure on behalf of the current authorities. Many countries are still in the initial phase of building their technical capacities (for example, the Dominican Republic and Nicaragua), while the rest have bigger progress. Brazil and Chile count with the most sophisticated evaluation and information production systems of the region to the day. Commonly, the lack of resources for the development of skills is the main reason for technical frailties of many of these systems. The countries of the region have moved forward in considerable ways to improve information distribution, particularly about student evaluation to different people involved. The distribution process is different; in some cases they publish the results per school (as in Brazil, Chile, Colombia, Ecua-
towards, Guatemala, Mexico, Paraguay and Peru), although not in every country the information is used for decision making or research. In other cases, the results are not published according to school data (Argentina and Uruguay), but the information is used with analysis and decision making purposes (Elacqua & Alves, 2014).

Decision making based on empirical evidence is not yet a popular practice in the region. This phenomenon seems to be generated due to not applying this evidence in their cultures and the lack of technical capacities, for there is data in every country that could be used with these purposes (Elacqua & Alves, 2014).

It is important to remember that most of the countries count with student evaluations. In Costa Rica, Nicaragua, Panama and Paraguay sample evaluations are taken every year. The rest of the countries from the region have census operatives (Elacqua & Alves, 2014; Treviño, Place, et al., 2013). In the case of the Dominican Republic, there are sample evaluations in primary school and census operatives in secondary school.

Among the group of countries with census evaluation systems, the use of information takes different shapes. Argentina and Uruguay only publish added score at national level but they do not provide information per school (Elacqua & Alves, 2014). In Uruguay, the evaluation system provides up-to-the-minute detailed information so teachers can monitor students learning, headmasters can know their school’s data and inspectors can handle their jurisdiction’s information (ANEP, 2015). Colombia, Ecuador, Guatemala, Honduras, Mexico and Peru publish their average results which are available to the public. Brazil produces an educational development report, taken into consideration test results and repetition rate, which are used for policy decision making. Chile established an accountability system with high consequences, that classifies schools according to their performance (partially considering other indicators of quality and the students socioeconomic level) and that includes incentives and penalties (Elacqua & Alves, 2014).

**Policy recommendations**

The large amount of information that the ministries of Education and public agencies collect, offer huge opportunities for monitoring education systems and their performance. However, it is necessary to promote institutional developments capable of linking data to different areas, in a way that it is possible to consolidate the available information.

Consolidated information systems would allow knowing boys’ and girls’ education track records since they enter the education system to better understand the opportunities and challenges they face. Thus, for example, it would be possible to know if boys and girls who attended preschool had lower repetition and dropping out rates during primary and secondary school. This could be linked to the available resources in the schools they attended and also to the learning results obtained in different official standardized evaluations. Through this information, it could be known and monitored critical obstacles from the school systems and also design and focalize on education policies to overcome them, providing students a better quality and more equal education.

That said, to begin this consolidation of monitoring and evaluation systems to be of use in decision making, it is essential to at least create five elements: 1) legal frameworks for monitoring and evaluating in education, since these are important for the development of systems
and define responsibilities and purposes with clarity; 2) proper institutional designs which allow adding the conditions for solid development of monitoring and evaluating, and establish important coordination mechanisms among the different information producing entities; 3) develop different technical capacities of recollection, processing, consolidation, usage and distribution of relevant data for decision making. Although some countries count with these capacities, it is still necessary in others to follow a budget for resources so ministries grant competitive working opportunities for this kind of groups, looking to install a “data usage culture” in the region; 4) improve information distribution, since a lot of times data is given an intensive use but distribution and usage on behalf of other key active people are still pending, such as local decision makers, deans, teachers and parents; 5) generate political support for the use of the information, since monitoring and evaluation systems must be accompanied by awareness processes for the decision makers and key active people of the systems (Elacqua & Alves, 2014).

Finally, it is necessary to consider that a thorough job is required to design different formats of relevant information delivery for the different members. In this sense, for example, it is plausible that unprocessed data not necessarily represents valuable information to some audiences that require them to be interpreted. On the other hand, sophisticated data analysis might as well not provide information to the decision makers, because their presentation is, most of the times, focused on methodological aspects when actually decision makers require substantial information regarding to the main findings and policy orientations that detach from them. As it can be observed, information production for decision making and spreading demands interdisciplinary teams which design information delivery with key messages specifically oriented to the different audiences. An example of this kind of developments is presented in Box 17, which describes the School with a new face Project introduced in Sao Paulo (Brazil), a project that aims to improve administrative and pedagogical management in schools through the incorporation of a data usage culture.

> Box 17. School with a new face Project

The Sao Paulo State Secretary of Education in Brazil is developing the School with a new face Project since 2000. This initiative aims to improve the learning of basic cycle students, promoting changes in administrative and pedagogical management with orientation towards influencing schools’ culture through decision decentralization. The main focuses of this project are: 1) the elaboration of a pedagogical proposal in close relation to the students’ context and particular needs of each one of them to identify their strengths and weaknesses, as a way to get advantage from the strengths and double the efforts to correct weaknesses; 2) school autonomy for administrative and pedagogical decision making at schools; and 3) automatic promotion that tries to eliminate selectivity and the falling behind of students at the end of every school year, putting the emphasis on learning and looking to change the culture in schools to replace sanctioning evaluation (to decide if a student passes or not to the following grade) through formative evaluation processes. It also provides infrastructure and an institutional team, thus incorporating different elements for the use of data inside educational establishments.

3.2. Early Childhood

The findings in worldwide investigation show that quality preschool education is an excellent way to improve educational and life opportunities for the most vulnerable communities (Barnett, 1993; Belfield, Nores, Barnett, & Schweinhart, 2006; Heckman, 2006, 2008; Nores & Barnett, 2010; Nores, Belfield, Barnett, & Schweinhart, 2005).

Challenges

Results from TERCE show that, consistently, boys and girls who attend initial education or preschool, between the ages of 4 and 6, reach higher learning results in primary school. This suggests that quality preschool education has important benefits that are continuous after considering the student’s socioeconomic level.

Preschool education coverage in the region is relatively low, though with considerable variations between countries (see Table 10). Chile, Ecuador, Mexico, Uruguay and Peru surpass 80% of the enrollment net rate. However, in Colombia, Guatemala, Honduras, Paraguay and the Dominican Republic participation does not reach 50%. These data suggest the necessity to improve the coverage of education systems for early childhood in the region. This cycle of education is particularly important given to its impact on the future cognitive development, as well as in the development of values, personality and behavior, among other central aspects of personal development (UNESCO, 2008).

Table 10. Enrollment net rate in preschool education age 4 to 6, both sexes (%)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>62.84</td>
<td>63.46</td>
<td>65.03</td>
<td>66.39</td>
<td>67.19</td>
<td>67.39</td>
<td>69.42</td>
<td>71.34</td>
<td>...</td>
</tr>
<tr>
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<td>...</td>
<td>67.60</td>
<td>70.10</td>
<td>72.80</td>
<td>74.80</td>
<td>77.40</td>
<td>78.20</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
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<td>...</td>
<td>67.46</td>
<td>66.38</td>
<td>67.87</td>
<td>81.88</td>
<td>83.36</td>
<td>86.58</td>
<td>91.16</td>
<td>...</td>
</tr>
<tr>
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<td>36.37</td>
<td>46.96</td>
<td>50.63</td>
<td>48.96</td>
<td>50.03</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
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<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>75.29</td>
<td>74.65</td>
<td>75.73</td>
<td>77.57</td>
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<td>...</td>
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<td>79.13</td>
<td>84.50</td>
<td>86.93</td>
<td>89.33</td>
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<td>48.83</td>
<td>50.23</td>
<td>58.92</td>
<td>57.45</td>
<td>50.31</td>
<td>47.40</td>
<td>49.04</td>
<td>51.15</td>
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<td>32.21</td>
<td>35.89</td>
<td>38.53</td>
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<td>43.70</td>
<td>43.53</td>
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<td>51.25</td>
</tr>
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<td>79.60</td>
<td>82.00</td>
<td>81.90</td>
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</tr>
</tbody>
</table>

Sources: UNESCO Institute for Statistics. Data from Brazil was taken from the document Brazil: Education for All 2015 National Review. Uruguay’s data from 2011, 2012 and 2013 is from the Uruguay’s Education Observatory (https://www.anep.edu.uy/observatorio/). Data for 2013 Panama is not available so it has been filled with information from the year 2014.
The analysis of TERCE data shows that, from the students evaluated in third and sixth grade, approximately a third part of it attended initial education, although considerable differences can be verified in this indicator between countries. Chile and Uruguay reach an approximate participation level of 60%, followed by Mexico with something above 50%. Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic are the countries with the lowest participation levels in initial education out of the participant students in TERCE. In all of those countries, 20 or less percent of the students evaluated in primary school declare to have participated in initial education.

Graph 14. Percentage of students that attended preschool education between ages of 4 and 6

In all of those countries, 20 or less percent of the students evaluated in primary school declare to have participated in initial education.

The participation in primary education of students from rural areas is lower than urban areas students (UNESCO, 2015), which is also related to the family’s socioeconomic level, as it was seen on the rurality segment.

It must be emphasized that access to preschool education is a necessary condition, although not enough to reach the effects that the investigation has detected. The achievement on successful indicators of early childhood is the work of multiple areas, having to ensure minimal health conditions, social welfare, public infrastructure, and housing, among other aspects. In addition, it is indispensable that education services in this level are of quality, which implies the development of solid pedagogical models with an intensive implementation to promote social, emotional and cognitive development in little boys and girls. Finally, basic security and infrastructure conditions are required, though this does not necessarily ensure that quality education is offered.

Policy recommendations

Consistent with international evidence, the results from TERCE show that attendance in initial education has a statistically significant relation to their later performance. In fact, education at this level has become national priority for several educational systems in the region (Treviño, Place, et al., 2013; UNESCO, 2014). In this sense, it is essential to prioritize the expansion of coverage and quality of this education level to the most vulnerable people, since that group has more difficulties...
getting access. National policies such as From Zero to Always in Colombia and Chile Grows with You Program aim to deliver comprehensive care to population in this level of development (Box 18), with the possibility of being considered interesting examples, especially to those countries that are positioned in higher development levels on their education systems.

While in this section recommendations are focused on topics related to education policies, it is essential to take into consideration that for attending necessities in this period of life a group of cross-sectional and comprehensive actions that guarantee children's rights in early childhood must converge. The fulfillment of such rights leads to putting the emphasis on the States' obligations, considering the specific characteristics of boys and girls in this vital stage; encouraging the recognition of little boys and girls as social agents that require protection and support; considering social and cultural diversity; and, lastly, insisting on little children's vulnerability who face poverty and discrimination. All these elements should be taken into consideration in the making of policies, programs and initiatives that attend to early childhood (UNICEF, 2006).

**Box 18. Comprehensive Early Childhood Care Programs**

These past years, governments from Colombia and Chile have furthered important initiatives which aim to develop comprehensive early childhood care. In the case of Colombia, it is the **Zero to Always Strategy** that, since 2011, gathers policies, programs, projects, initiatives and services directed to boys and girls between the ages of 0 and 5. The strategy is organized around five main goals: 1) guarantee the fulfillment of boys' and girls' rights in their early childhood; 2) define a long term public policy that guides Colombia in terms of technical and financial sustainability, global care and strengthening of the territories; 3) guarantee timely and quality comprehensive care for early childhood; 4) raise awareness and put all the Colombian society on motion with the purpose of transforming the conceptions and ways of socializing with the youngest boys and girls; and 5) make visible and strengthen family as a fundamental member in early childhood development. To accomplish their goals, this strategy combines focalized actions (especially towards vulnerable groups) with universal policies of promotion, information and awareness. The Zero to Always Strategy coordinates institutions, both public and private, to guarantee, in the long term, comprehensive care to 2,875,000 boys and girls.

Following the same line, **Chile Grows with you**, since 2009, has wanted to be the pragmatic umbrella under which a comprehensive protection system for infancy is structured, and its main goal is to accompany and make a personalized tracking of the boys' and girls' development, since the first pregnancy check-up until they enter the education system (at age 4). The program looks to establish access warranties to a State services network focalizing on the most vulnerable families, through Bio-Psycho-Social Development Support Program (PADBP), with orientation to control, vigilance and promotion of boys' and girls' health; and the Newborn Development Support Program (PARN), aimed to all the families who turn to the public health network for labor. It also contemplates differentiated services according to the particular characteristics of boys and girls, which includes free access to nurseries and both extended and part-time preschool, the Single Family Subsidy (SUF), a subsidy for
families given since the fifth month of pregnancy until the age of 18; studies leveling; mental health care; prevention and domestic violence and child abuse care; incorporation to labor market; housing improvement; legal assistance; and family dynamic. Additionally, the program produces and delivers information to all the population about nursing and early childhood characteristics through their website, Childhood Phone (a hotline service), a radio program called Growing Together, social networks, educational booklets and a music collection. Coordination and articulation of the comprehensive early childhood protection system corresponds to the Ministry of Social Development, although the Ministry of Health (MINSAL), Ministry of Education (Mineduc), Ministry of Labor (MINTRAB), Ministry of Women and Gender Equality, which has recently replaced the National Women Service (SERNAM); National Board of Nurseries (JUNJI) and the National Fund for Impairment (FONADIS) also participate. 


Recommendations for local implementation

International evidence has alerted that the increase in initial education coverage is not enough if quality education is not guaranteed, particularly about spaces, materials, care and social interactions that promote childhood development (Britto, Yoshikawa, & Boller, 2011). That is why it is also important to invest in qualified teaching and technical personnel, specialized on this level as means to reduce the relationship between children and technical personnel from organizations, the way some English-speaking countries have done. Developing infrastructure, material and appropriate texts for this stage are also essential components when offering quality service. Finally, it is very important to generate learning processes and cooperative opportunities that enable teachers and their teams to develop professionally in terms of knowledge, skills and aptitudes.

In this regard, different civil society organizations have wanted to develop innovative interventions which allow, considering different contexts and scales, to contribute to the enhancement of teaching and technical personnel abilities and skills in early childhood. In this task, both national governments and local institutions have much to contribute. An example of these interventions at local level is the Good Start Program, a program developed in Chile during the past decade (Box 19).

> Box 19. A Good Start Program

A Good Start Program focuses on professional teaching development for educators and preschooler technical personnel and aims to contribute in the decrease sociocultural differences in initial education have among boys and girls who live in vulnerable social conditions in Chile. This, through an integrated work in four areas: language development, socioemotional development, health and family work. The program belongs to the Opportunity Foundation, a non-governmental and
non-profit organization. The first version was developed between 2008 and 2011, following a highly structured coaching model and its impact was evaluated through an experimental design. Later versions were made in the Sixth Region, following a continuous upgrade and learning model for teachers. Both the first version of the program and its continuous upgrade model operated according to twelve formative monthly cycles held for two years. Each cycle consists of one group training session, where a topic of interest is introduced, and two classroom visits. First, the facilitator shapes a strategy and, after, the educator leads the activity; finally it is accompanied by closure and reflecting on what was done. The continuous upgrade versions, in addition, incorporate as essential tools the use of classroom changing tests and cooperative work instances between classroom groups from different communes, and between classroom groups, directive entities, tutors, researchers and supporters.

Source: Varela and Duran (2015).

Lastly, the creation of an institutionalization that enhances the capacities development in different early childhood care and education modalities is necessary. This must, on one side, be responsible of establishing quality standards about infrastructure, material and learning processes, and, on the other side, verify its proper fulfillment. It is no surprise that different governments of the region are enhancing or creating specific ministerial instances to support early childhood, which will allow them to improve this area’s capacities.

3.3. Repetition and awareness to the educational gap

Education systems organize primary education in school year or grade and the curriculum establishes the learning that must be achieved by the end of each period. This form of organization has resulted highly efficient for expanding access and offering educational attention in a practically universal manner. However, this type of organization has required implementing mechanisms that serve to students that don’t receive the learning required by the curriculum during a school year. Repetition is the remedial device par excellence present in school systems.

The logic of repetition is simple: if a student does not receive the learning expected for a school year, they have to repeat that year. This way, they can be consolidated and reach the knowledge and abilities that they haven’t achieved. According to this premise, repetition would remedy the learning gap.

Challenges

The repetition of a school year is associated negatively with learning outcomes in a consistent way in all the countries, grades and disciplines evaluated in TERCE. These findings are coherent with what was found in the Second Regional Comparative and Explanatory
Study (SERCE) in 2006 (finished in 2010). Those students that repeat their year, instead of improving their learning achievements, show levels of achievement lower than their classmates that haven’t failed. In this sense, repetition doesn’t seem to solve the problem of the learning gap, but instead worsens it.

In the region, nearly a quarter of the students from the third and sixth grade have repeated at least one school year, although important differences have been registered between countries. In Brazil, Colombia, Guatemala, Nicaragua and Dominican Republic, between 20 and 30% of the students evaluated in TERCE have repeated a grade in primary school. A second set of countries with levels of repetition between 15 and 20% is constituted by Argentina, Costa Rica, Ecuador, Panama, Peru, and Uruguay. Finally, Chile and Mexico show levels of repetition lower than 15%.

Graph 15. Percentage of students who have repeated at least one primary school grade

<table>
<thead>
<tr>
<th>Country</th>
<th>3rd Grade</th>
<th>6th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Brazil</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Chile</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Colombia</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Ecuador</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Guatemala</td>
<td>40</td>
<td>35</td>
</tr>
<tr>
<td>Honduras</td>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>Mexico</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>Panama</td>
<td>60</td>
<td>55</td>
</tr>
<tr>
<td>Paraguay</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Peru</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>Uruguay</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Total countries</td>
<td>85</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Own elaboration using data base from TERCE.

It can be understood from this that grade repetition is a phenomenon generalized and pedagogically ineffective to improve learning. This is an organizational arrangement that also has other effects on the lives of children such as low self-esteem, low perception of self-efficacy, and the loss of connection with classmates. Repetition assumes that the conditions of children that learn in school are relatively similar, ignoring important factors, as much as extracurricular (socioeconomic level, exposure to violence, psychosocial problems, lack of food, among others) in-school (ignorance of the different learning rhythms or trajectories in educational differences), that are related with the learning gap and repetition (Espindola & Leon, 2002). Finally, it is important to mention that gaps and repetition are strongly associated with other problems, such as desertion or abandonment of students from the education system especially in the region (Terigi, 2014). Due to all of this, it is essential to set out alternative mechanisms of dealing the gap, designed to address to specific areas where the student has not achieved the learning and propose a clear timeframe to evaluate the progress of the student and most importantly, the effectiveness of the intervention.
Policy Recommendations

The bold evidence by TERCE shows that repetition is one of the factors that have a negative effect on a large on with performance. This result is consistent with collected evidence in the previous regional study (Treviño et al., 2010). Repetition supposedly oriented at improving students’ learning, appears as an ineffective mechanism that is associated with lower level of learning. It is possible that this brings about problems such as stigmatization, motivation and classroom environment that hinders the performance of the students that have repeated a grade. For that reason, it is indispensable to look for preventive formulas in order to avoid the gap and let repetition be the last resort in exceptional situations, mainly through indications (policy, pedagogical and/or legal) that are common and have national reach. An interesting case in this regard is the government initiative of Costa Rica, which after five years of study and evaluations about this matter in its particular national context, has developed a series of legal transformations aimed at limiting the repetition in the Third Cycle of Secondary Education (Box 20), thus producing an exemplary way of rethinking the problem.

> Box 20. Legal Changes oriented towards limiting repetition

In 2008, the government of Costa Rica applied a series of legal changes aimed at limiting repetition, especially in the Third Cycle of Secondary Education. In summary these changes consisted of 1) students repeating only those subjects they failed with the possibility of passing over subjects of higher levels, 2) that the courses are approved by their weighted annual grade, 3) that the behavior grade does not affect the evaluation of the subjects and 4) increase to four expansion subjects. To evaluate the results of this series of changes, the Costa Rican government decided to develop six studies, two quantitative and four qualitative. The general results of the study demonstrate relevant agreement regarding the change of the grade in the third quarter, the increase in the number of subjects for the expansion test, and a partial agreement of the agents of the educational community about the change of the conduct grade and the strategy of repetition for failed subjects, generating new reflective processes and discussions about the educational policies of the country.


School Care Pathway experiences already exist at national and local levels. In Argentina they have developed schools of re-entry, in Uruguay they have implemented the of teacher’s community program, and in Colombia they have launched the program "School in Search of Children", that represent steps on the path toward avoiding course repetition (Rivas, 2015). At the same time, different countries have developed programmes aimed at children and teens so that they finish their education and/or literacy, through programmes that bring economic, family, social and/or educational support to the students, such as it is shown in Box 21.
Recommendations for Local Implementation

Designing and testing academic support programs in specific disciplines for students who have fallen behind is recommended. These programs should be at the service of the school and teachers who should implement them with the support of different professionals such as social workers, guidance counsellors, psychologists, and pedagogical psychologists. Such initiatives require a defined time horizon to achieve their goals in ways that can continuously evaluate student progress and adjust or adopt additional strategies for specific periods in case they are needed. It is essential that the support programs, materials, and implementation are evaluated rigorously, in such a way that they are transformed into tools based on evidence and knowing their effectiveness. In this same sense, it’s important that the schools have mechanisms that detect students’ learning challenges early, so that a timely intervention is set in motion and not necessarily at the end of the year.

> Box 21. Programs for finishing studies and literacy

Different programs have developed for finishing studies for young learners in the region. Such is the case of the Basic Education Project (EBJA) for Young and Adult learners in Ecuador since 2011, which promotes the integration of literate citizens from agricultural and rural zones into entrepreneurial proposals, to give access to credit and supportive commercial networks. This way, it promotes the improvement of the educational level of the literate people and contributes to decreasing the social, ethnic and cultural inequalities. This project has been able to reduce the illiteracy rate from 6.8% in 2010 to 4% in a progressive way until 2013, touting 278,742 literate participants in Panama.

Since 2008, The Educational Development Project (PRODE), along with the Ministry of Social Development, has served young and adult learners who need to reinforce the process of literacy by the means of the implementation of the post literacy project. This serves a large population that has fallen behind in education and gives them continuity in primary education. As a goal, 4,500 young and adult learners are served by 126 facilitators in 124 centers located all over the country. Each grade is advanced on a quarterly basis, making 38% to 40% per quarter.

Finally, the Argentinian government has implemented since 2008, the Plan for the Completion of Primary and Secondary Studies (Fines), intended for all people over 18 years of age who haven’t finished their primary and/or secondary studies. This plan has a national coverage and it includes two lines of action: 1) FinEs Deudores de Materias (Debtors of Subjects), focused on all people over 18 that completed their last year of secondary education as regular students but still have pending subjects and no diploma. 2) FinEs Trayectos Educativos (Educational Paths) is focused on people over 18 that didn’t start or complete their primary/secondary education. In both cases, the program includes the accompaniment of tutors and teachers that guide students in this process of preparation for subjects, with differentiated strategies for young learners between 18 and 25 years of age; compared to those of 26 or more.

**3.4. Teacher Training**

Teacher training represents a fundamental tool to generate teaching capacity within education systems, such as the ones previously pointed out, amongst others, the recent McKinsey report (Mourshed et al., 2010). Teacher preparation has two important stages: the initial training defines the minimum requirements of studies that must be met by those who seek to work as teachers in the school system and in service training that corresponds to the specialized training bodies that train teachers that have already completed the initial training (including the induction into working life) and are found working in the educational system. In most countries in the region, both stages are organized or structured within a teacher’s career, which accounts for the process of entry, and continuous progression and training of teachers.

The investigation has shown that the observable attributes of teachers are not usually related with learning achievements (Rockoff, Jacob, Kane & Staiger, 2008). This situation is more widespread when analyzing initial training, as important parts of the school systems in Latin America establish rules regarding the minimum training required to be a teacher, given that this training required is the same for all teachers (with the exception of Brazil and Chile). This characteristic is almost constant, in that it doesn’t correlate with the results of student learning. Nevertheless, continuous training is an interesting indicator that teachers receive while in service in order to improve their knowledge and practices as professionals. It requires continuous specialization to meet the needs of students according to the latest advances in knowledge.

**Challenges**

The initial teacher training data shows a wide variability between countries as stated by teachers from third and sixth grade who were surveyed in the framework’s application for the TERCE test. As you can see in Figure 16, 80% or more of teachers have a degree in Argentina, Brazil, Chile, Colombia, Costa Rica, Panama, Paraguay, Peru, and Uruguay. Below that threshold are Ecuador, Guatemala, Honduras, Mexico, Nicaragua, and The Dominican Republic. Only in Argentina, Chile, Costa Rica and Paraguay, do more than 95% of teachers have a degree that certifies them in both grades evaluated. As such, it shows that the regional level still has a lot to do to improve and regulate initial teacher training.
Another way of seeing the initial teacher training is through the educational level reached by teachers in service. According to Graphic 17, in all the countries, at least 60% of teachers of the third and sixth grade have studies equivalent to higher education, with the exception of Guatemala and Nicaragua. In Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Panama, Paraguay, Dominican Republic and Uruguay 80% or more of the teachers of both grades have tertiary education, although this accounts for more regarding the intensity rather than the quality of the training received.

**Graph 16.** Percentage of teachers with a teaching degree.

**Notes:**

- It is necessary to remember that the data from TERCE is automatically reported, so these numbers could have some differences with official records.
- Source: Own elaboration using TERCE`s database.

Another way of seeing the initial teacher training is through the educational level reached by teachers in service. According to Graphic 17, in all the countries, at least 60% of teachers of the third and sixth grade have studies equivalent to higher education, with the exception of Guatemala and Nicaragua. In Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Panama, Paraguay, Dominican Republic and Uruguay 80% or more of the teachers of both grades have tertiary education, although this accounts for more regarding the intensity rather than the quality of the training received.

**Graph 17.** Percentage of teachers, according to the highest educational level reached.
In summary, TERCE data on initial teacher training shows that in most countries, more than two thirds of the teachers have an education degree and have also gained a degree in tertiary education. Nevertheless, with the variability between countries, there also appears to be some areas to work on so that all teachers from the countries, as a minimum, have a teaching degree equivalent to higher education. It is worth mentioning that raising the standards of certification for initial teacher training is important, but it is also necessary to consider the quality of training programs, a subject that is beyond the information of the TERCE study but it is crucially important for education development policy in countries.

The second stage of teacher preparation corresponds to continuous training: that which they receive when they are already in service in school systems and including, amongst others, studies leading to academic degrees (master’s or PHD), disciplinary specialization courses and diplomas.

According to the data provided by TERCE, continuous teacher training is relatively limited in the region, although there is high variability between countries. The numbers generally show that 30% or less of teachers in the third and sixth grade have participated in improvement courses in the last two years (Figure 18). Argentina and Peru, followed by Dominican Republic and Chile, are the countries where a larger percentage of teachers have been reported to have participated in continuous training activities in that period. In these countries, between approximately 30 to 70% of teachers confirm having participated in these activities, with important variations according to discipline and grade.
Policy Recommendations

The countries in Latin America look to satisfy the necessity of having a body of professional teachers. In the last 20 years, a continuous increase has been registered in the years of initial teacher training, establishing, in a vast majority of the countries, the requirement of a higher education qualification. However, this increase in the years of schooling has not been accompanied by improvements in teaching practices in the classroom (Bruns & Luque, 2014), which are the base for generating a better quality of education.

Given this scenario, strengthening initial formation by offering tools that teachers can put to effective use in practices that support students’ social, emotional and cognitive development is required. The UNESCO report about teaching policies in Latin America and the Caribbean (2013), points out four essential criteria for the strengthening initial teacher preparation: 1) promotion and admission to studies in pedagogy of students with excellent academic history, such as graduates from secondary education that are among the highest 10% of average scores; 2) improvement in the quality of teacher training programs, linking greater emphasis on in-depth knowledge of the disciplines, improving training strategies and evaluation of learning; 3) reinforcement of the quality training targeted at teaching disadvantaged social groups, through for example, the process of tutorials; and 4) regulation systems, review and evaluation for training programs and teachers who graduate from them.

Considering the disparity in years of continuous training in the region, an interesting example of these policies at a national level is the Vocational Teacher Scholarship, put in practice in Chile in 2011 (Box 22) and it recently started in Peru by the name of Vocational Teacher Scholarship.
The Vocational Teacher Scholarship (BVP) has the purpose of bringing young learners with higher abilities to the teaching profession. In short, the BVP delivers incentives to students that are enrolled for the first time as first-year students in pedagogy accredited by the National Accreditation Commission (CAN) for at least two years (BVP Type1). It also includes incentives for students from other degree programs who opt for pedagogical training programs, looking to improve the quality of professors in the Middle Education (BVP Type 2). The amount of the incentive differs depending on the student’s score in the University Selection Exam (PSU). The students with lower scores receive support with tuition and fee payments; while that students with higher scores additionally receive a monthly contribution of about 150$. The last group, with outstanding results, can choose to spend a semester of their studies abroad. These students must commit to repaying the benefit by working at least three years in subsidized establishments in the country (Public and Private). As of 2014, more than 8,300 of the pedagogy students in both modalities of the BVP have participated and it is expected to expand to 10,000 in the coming years.

Secondly, it is pertinent to improve the quality of teacher training programs with greater emphasis on deep knowledge of the disciplines and an orientation towards pedagogical innovation as a method of teaching students accompanied by improvement in the academic preparation of trainers, for example, requiring doctoral studies. One way in which the countries of the region have sought this improvement, is through strengthening of initial training aimed at the quality of the teaching in an inter-sectoral manner, as has happened in Peru with the Establishment of Standards and Criteria for the Accreditation of Higher Institutions of Teacher Training program (Box 23) in a very similar way to what has happened in other countries in Latin America such as Chile. In this way, several countries have begun to set standards and norms to organize the whole initial training, although in some cases these standards are only indicators that show the way of improving the quality of the teaching in the region.

Fixing Evaluation Standards and Criteria for Accrediting Higher Teacher Training Institutions in Peru

From the beginning of 2009, The Council of Evaluation, Accreditation and Certification Quality of Non-University High Education (CONEACES) has worked on developing standards and criteria of evaluation, to accredit higher education of teacher training institutions, with the objective to improve the quality of integrated training, which will potentially allow the transit of institutions from lower acceptance levels to optimal levels of continuous improvement. This process of evaluation has involved all types of institutions (public, private, urban, and rural), including different instances of...
The quality initial training is a way to improve the abilities of teachers over the long term. Time is required to gradually replace teachers who retire or leave the profession. With the objective that students not lose educational opportunities while change is being made, it is necessary to complement actions of improving initial training with continuing education policies and programs. Given the situation of teachers in the region, educational strengthening policies need to follow criteria that ensure their quality, among these are (UNESCO, 2013):

1 Assuring teachers have the right to relevant continuous education, focusing on the holistic development and learning of students. This means, sufficient resources in order to guarantee this right for all school teachers financed with public resources.
Focusing training in a way that directly impacts teaching practices and student development.

Designing professional teacher development systems linked to training so that they distinguish between the supports provided to teachers on the basis of the stage of working life in which they are.

Designing and implementing mechanisms to regulate the offering of continuous training, in such a way that is of high quality and relevant to the necessities of students' learning and development.

Promoting collaborative learning among teachers in the context of the school, starting with the development of communities, learning networks, and from national and international practices with the intense use of modern information technology.

Regulating the quality and pertinence of the postgraduate programs in education so that those oriented at classroom teachers focus on practices for supporting the cognitive, social and emotional development of students, having the central focus of the training process the understanding of the school and classroom.

There are examples of continuing education policies and programs in the region that can nourish other countries. These examples have developed different contexts and countries that have diverse levels of development in their education systems, which can be observed in Brazil with the Professional Development Program (PDP); in Colombia, through the program All at Learning; In Ecuador, through the Comprehensive System of Professional Educational Development (si Profe). As an experience of promoting collaborative learning, the accompaniment program for new teachers in Argentina, The Teacher Networks of Teachers in Chile and the Mentoring Program for Ecuador (Box 25). All this accounts for the heterogeneity of teacher training and the level of development of countries is not an impediment to the development of these initiatives.

> Box 25. Collaborative Programs of Continuous Training

During the last few years, different governments in the region have developed continuous training initiatives that include collaborative work and support processes between teachers. Such is the case of the Program of Accompaniment for New Teachers in Argentina, generalized in 2007 which makes it easier for beginner teachers to analyze and get accustomed to the particularities of the classroom and build questions and alternative actions with their colleagues. Within the strategies are co-observation of classes, the generation of disciplinary seminars (where aspects of teaching are explored), cross-sectional seminars (working on topics that can really happen in schools) and workshops for the analysis of practices, which serve to discuss teaching practices objectively. In 2012, 396 teachers from 220 schools participated in the continuous training program.

The Network of Teachers, launched in 2002 by the Center for Improvement, Experimentation and Pedagogical Research (CPEIP) of the Ministry of Education of Chile, looks to connect different teachers to take
advantage of their abilities and their excellency, contributing to the professional development of this set of classroom teachers. The strategy of the network is based on the accredited teachers delivering pedagogical advice through the Active Participation Project (PPA), which are conceived as in services sessions according to the disciplinary and/or pedagogical needs of classroom teachers in subsidized school in their neighborhood also making it possible to contribute through the creation of educational material or other forms of virtual work. The horizontal work between pairs has allowed for the promotion of reflection about innovation in classroom teaching. The network of teachers has developed more than 1,300 PPAs across the country, benefitting 13,000 classroom teachers in subsidized establishments.

The Mentoring Program in Ecuador, implemented in 2010, designed a support system between teachers, through training processes and the elaboration of packages of instructional materials to guide the training of mentors and teachers. Especially relevant are three dimensions of the mentoring process: 1) in their role as a teacher in their classroom; 2) in their role as a pedagogical companion; 3) in their role as researchers, mentors, in turn, conveying the experiences of assessments carried out by the advisors from a ministerial research team. The change in conceptions and practices of mentors has been instrumental in order in to gain an understanding from the lived experience, of what it means to make pedagogical innovations. This program has taught pedagogical skills to teachers in rural schools, single teacher and multi-teacher, and has trained 28 teacher-mentors throughout the country, companions in a range of 6 to 12 teachers in new curricular competencies, pedagogical companions and trainers of other teachers. It has also supported in up to 228 classroom teachers who work in the 2nd and 7th grades of the basic general education, in 112 intercultural rural schools that are bilingual and/or are poorly performing schools in standardized tests.


3.5. Information and Communication Technologies

Information and Communication Technologies (ICT) have been a constant promise of support students learning. Although ICT includes a wide range of equipment and options, this paragraph is centered on the use of computers, for being a technological component that has been part of the educational endowment and access policies and in the region (Treviño, Place, et al., 2013). However, the results from TERCE show that the relationship between the use of computers in school and learning varies according to the intensity of utilization of this technology. When students use the computer for 1-2 days weekly in school, a clear relation between this practice and learning is not observed. In some countries there is a positive relationship, in others a negative, and in others there is no signification association. Instead, when students use a computer in school more than twice a week, as a generalized matter, a negative association of this practice with learning is found.
Challenges

In matters of the use of computers in school, the region has two challenges. The digital gap is the first one. This is the inequality of access to computers and internet connections. As we can see in Figure 19, in nine countries, half or more students state they don’t use a computer in school. Even though the data doesn’t allow for seeing if those who use a computer in school have internet access, in the region important disparities exist in terms of the opportunities to use a computer in school that need to be closed by providing this input to school establishments.

The second challenge relative to the use of computers in school is more complex. It points to the utilization of this technology to support the learning of students. In this sense, the integrity of the computer as a learning tool in school embodies specific questions that must be resolved to line up the expectations of educational policies and practices with the real possibilities that this type of technology offers. Given the recent arrival of this type of technology to schools and the accelerated spread of the technology with internet connection amongst the population of the region since 2000 (Internetworldstats, 2015), a set of questions arise regarding the purposes that this type of technology can have in school, among which can be counted: a) facilitate access to knowledge as a tool for research; b) support the pedagogical practices of teachers, including activities that can be facilitated with the use of technology; C) promote collaboration among students in the classroom; And, d) design and implement new learning experiences that are possible thanks to the use of technology. This list of purposes isn’t exhaustive, but it gives account that the use of technology can attend different educational and access ends. However, in order to aspire that the use of technology in school relates to learning, it is necessary to emphasize the educational use of computers and its inclusion according to weekly use intensity in school suitable in teacher practices. In case the objective

Graph 19. Percentage of sixth-graders according to the amount of weekly computer use at school

Source: Own elaboration using TERCE database.
of the technology endowment to the school is the closing of the digital gap and learning purposes aren't followed, it would be illogical to expect that this type of policy on its own leads to finding an association between learning and the use of technology.

**Policy recommendations**

The arrival of the ICT in school systems is a tendency that seems irreversible, given that technology has expanded amongst the population in the region. Facing this reality, designing appropriate policies and practices for the correct integration of technology to educational enclosures is essential.

From the scope of public policies, it is necessary for these to be contextualized and comprehensive so that the access of knowledge is promoted for students. This way, they should consider the following criteria (Severin, 2013): 1) define access to technology and the Internet as a right, which implies that the State ensures access to the population that cannot have it by its own means; 2) to ensure basic training for teachers and families in the use of digital technologies, so that they can adequately support students; 3) establish regulations that guarantee the right to privacy, copyright, promotion of local cultures and recycling of equipment; 4) promote good educational practices in the use of technology, which contribute to having respect for diversity and promoting a culture of peace, favoring access to quality educational resources for all schools and students, promoting peer collaboration, development of networks and learning communities; And, 5) use the potential of technology to promote life-long learning and the development of a diversity of talents. A lot of these guidelines have been taken up recently by countries of the region, like the case of Brazil, Costa Rica, and Uruguay, which have encouraged important programs and educational innovation plans that look to integrate Information and Communication Technologies to pedagogical work (Box 26).

> **Box 26. Educative innovation programs for using Information and Communication Technologies**

The **National Program of Technological Education of Brazil (Proinfo)**, created in 1997 and redesigned in 2007, has as its fundamental objective to improve the quality of education through the use of technological tools in educational space. In brief, the plan develops through three components: A) the generation of technological and digital resources in a group of selected schools; B) the development of a training plan for the evaluation of educational services offered; And, C) the availability of various content and educational solutions. The objective of the program is to insert information and communication technology in Brazilian basic education and its processes of teaching/learning, through the installation of computer labs, technological solutions and the training of teachers and students, promoting additionally the equal access and technological laws in the school system. The program has sent more than 160,000 computers to schools in Brazil and plans to benefit 7.6 million students, in 7,580 public schools and 3 million students in rural schools.

In the same line, since 2006 the Costa Rican government has been developing the **Schools of Educational Innovation**. This project aims to implement information and communication pedagogical technologies and transform the educational act in order to generate highly
creative and interactive learning environments. Thus, with the purpose of arousing interest and motivation of student population, and develop skills in the use of these tools for inquiry and issue resolution. The Schools of Educational Innovation are being developed in 93 day-time secondary schools, located in the different urban and rural regions of the country, which serve approximately 54,370 students. These schools have been provided with technological equipment and specialized human resources that accompany regular teachers in the implementation of lessons supported by the use of these technologies.

In Uruguay there is the Educational Connectivity Plan for Basic Informatics for Online Learning (CEIBAL), implemented since 2007 and managed from the CEIBAL Center for the Support of Childhood and Adolescence Education, an office that responds to the Presidency of the Eastern Republic of Uruguay with the participation of the teacher’s union. The CEIBAL Plan is a program that promotes the integration of technology to the education service to improve its quality and boost social innovation processes, inclusion and personal growth. The CEIBAL Plan looks for social equity from the use and assumption of technologies, attending not only children but also families, given that computers are property of students and are used in and out of classrooms. The massive growth of these technologies is oriented so that students of primary and secondary school can develop new skills to access, select, and classify information in function of their needs and interests, at the same time that they can develop the critical capacity to obtain the greatest advantage and use of the technologies. Teachers have been supported through face-to-face and virtual courses for computers use. Additionally, CEIBAL is allowing the universalization of education of English in Primary Education through videoconferences, obtaining in 2015 85% coverage in students between 4th and 6th grade in urban schools. Another of the platforms with which CEIBAL contributed in its development is the System of Evaluation of Learning, through which more than 800,000 students from 3rd to 6th of Primary perform online assessments of Mathematics, Language, Science and English every year. At the moment, the CEIBAL plan has a web portal which shares for free a repository of more than 4,000 text books, games, and a virtual campus with courses for teachers and support for children, parents and community. The CEIBAL plan has distributed more than 300,000 computers in more than 250 public places, as well as other public and private educational institutions.

**Source:** *Education for All Reports (2015, 2014), UNESCO (2013), Ministry of Education, Uruguay (2015).*

**Recommendations for local implementation**

At school level, it is also necessary to establish oriented criteria for the use of technology. In this ambit, UNESCO (Severin, 2013) proposes seven measures: 1) promote new learning experiences with personalized pedagogical processes and focused on students, that adapt in function of the impact evidence about student development; 2) facilitate the collaboration in classrooms and in school, besides generating links with school actors of the region, to create learning communities that can access inclusion experiences of technologies from other latitudes; 3) recognize the knowledge of students for its familiarity with technologies and take advantage of them for mutual learning; 4) encourage a culture of peace and respect for diversity through pedagogical practices that, using technologies, offer opportunities for students so that students learn to be and live together; 5) include the uses of technologies such as tools for learning in the initial and continuous teacher training programs,
where pedagogical strategies are incorporated for the use of pedagogical technologies, for the use of technologies with educational purposes and also to establish links with students from their own interests; 6) Promote the creation of exchange networks to share pedagogical and curricular models, as well as effective pedagogical practices and instruments to monitor the proper implementation and achievements of students; and 7) open spaces for innovation in use of technologies, so as to support the development of social and emotional skills among students.

Remembering that the recommendations proposed here also include those of a more local reach in school practices, initiative such as Atlas of Cultural Diversity in Argentina or Pacific Info-classrooms in Colombia have followed these guidelines, promoting the exchange networks, the development of abilities and social skills, and the cognitive learning through the use of technologies in the classroom (Box 27).

> Box 27. Classroom Strategies that include ICT use

Schools have developed various strategies for using communication and information technologies in school processes. One of the most outstanding initiatives is the Atlas of Cultural Diversity, developed between 2003 and 2007 in Buenos Aires, Argentina. Atlas is an educational, telematics, collaborative and interschool project that seeks to constitute a global community of learning and cultural exchange: The Atlas Community made up of young people, students, teachers, families and other social actors, committed to the recognition and appreciation of Diversity and recognizes the potential of information and communication technologies in education. In this way, the initiative is based on three branches: a) teacher training; B) the integration of technologies in school activities of high interaction from the students; and, c) the approach of cultural diversity as an opportunity to work on values in education. Thanks to this strategy, the teachers have found a methodological proposal with different activities to perform with their students that facilitate the gradual and progressive introduction of Information and Communication Technologies in an integrated way with the school curriculum. More than 3,000 teachers and 41,000 students collaborate with the Atlas of Cultural Diversity.

Although with another target, the Colombian project Pacific Info-classrooms, in operation since 2002, shares many of these characteristics. Pacific Info-classrooms is basically about incorporating Information and Communication Technology into the teaching and learning processes developed in official educational institutions, as an important support to improve the educational quality of the county of Buenaventura. The purpose of the program is to offer the whole educational community in the municipality (Students, teachers, managers, and parents) alternatives for training and qualification in the domain and application of Information and Communication Technology. With this initiative at the local level, more than 25,000 children and youth have been trained in computer management instruments and carrying out of collaborative projects. 5,300 people from the community are trained in the basic computer and Internet handling, while the teachers of 10 educational establishments of the municipality have been qualified in technologies applied to the classroom, allowing the development of pedagogic, didactic, and informatics type abilities.

Schools represent the social institution that has been assigned the role of materializing the integral development of students, being one of the areas of greater socialization, personal development and construction of the sense of Community of contemporary societies (Brint, 2006).

It is in the schools where the objectives of the curriculum, policies and educational programs converge; where they carry out the educational processes that should lead to the fulfillment of the goals that each society has raised for the educational system.

This chapter presents the challenges that schools face in improving the quality and equity of education in the region. The elements that touch immediately correspond to the major findings of TERCE and complemented with other relevant research topics.
4.1. Learning inequalities inside the school

In Latin American, we can observe that the inequalities of learning among students of the same school have gradually increased, at the same time that the inequalities among schools have decreased. This phenomenon is due in part to the improvement of life conditions of the students, given the drastic reduction of poverty that the region has experienced, also, educational investment that helps in furnishing the conditions in which the schools operate. Although this phenomenon occurs differently among countries, comparing the results of TERCE with those of SERCE, we see that, in the majority of the cases, the differences of achievement between students of a same school have increased.

Challenges

The extension of inequalities of learning between students of the same school raises important pedagogical challenges. As we can see in Figure 2, the differences of learning inside the school do not relate with the socioeconomic level of the students but do with the mechanisms used in the classrooms. It is necessary to mention that, according to TERCE, the levels of school segregation in the region are relatively high. This implies that the socioeconomic characteristics of students of the same school tend to be highly homogeneous, while there is a broad socioeconomic differentiation of students attending different schools.

It is worth mentioning that a variation exists in the degree of inequalities of learning inside the schools that the countries present. However, in the majority of the cases, the differences of achievement inside the school represent at least 40% of the total of inequalities of learning.

Policy recommendations

The inequalities of learning inside the schools must be approached with a systematic focus. In other words, the schools must design, implement, and evaluate mechanisms in function of the diversity of the necessities of learning that are applied to the whole organization, establishing, for example, reinforcement systems or tutorials for disadvantaged students or organizational processes to increase the relations between students of different academic levels. This way, the mission of improving learning of laggard students is shared by all managers and teachers.

It is important that the countries of the region develop guidelines and criteria in order for the teachers to strengthen strategies that will allow them to capture the diversity (academic, social, cultural, ethnical) of students inside the classroom, through strategies that have as a seal pedagogical innovations. During the last few years, different countries have generated various laws that serve to confront this challenge (Box 28), promoting the heterogeneity inside the classroom. Unlike other aspects, this seems to be a transversal challenge for the set of countries of the region.
Box 28. Decrees related to teaching and heterogeneity inside the classroom

During the last few years, different governments have promoted legal, administrative, and pedagogical transformations oriented at upgrading the teacher’s work in various classrooms. For example, in Ecuador, the Ministry of Education has instructed the teachers to “provide additional resources and present specific actions in order for students to learn in equal conditions and take advantage of all the opportunities that are presented to them, implementing educational measures to attend the diversity, such as the curriculum, variety in educational offer, suitable resources and materials, among others.” Something similar occurs in Peru, where the Framework of Good Performance highlights the need for teachers to incorporate what is known as pedagogical judgment, which implies “recognizing the existence of different ways to learn, interpret, and value what each student demands, recurring to their individual necessities and possibilities”. Additionally, teachers are encouraged to choose particular strategies according to the context and circumstance in which teaching is given, with the purpose that each teacher “identifies the strengths of students, so that these allow them to contribute and help other students learn how to work in heterogeneous groups that favor the contribution of all its members”.


Recommendations for local implementation

The support mechanisms to impulse learning of students with lower achievements must be specific and with a defined temporality. This means, instead of cataloging a student as a low general performer, it is necessary to identify the specific discipline in which he/she presents difficulties. This implies that schools and educational systems must avoid the development of rigid grouping processes that are highly inequitable (Treviño, Valenzuela, & Villalobos, 2015). Additionally, it is necessary to elaborate a reinforcement plan with clear objectives and a specific temporality to reach them. Although this is a national challenge, the schools themselves can be the ones to, from now on, start generating pedagogical practices that allow for closing of gaps, through the implementation of tutorial processes, specialized support and curricular adaptations according to the necessities of each student.

The criteria of temporality and specificity are crucial for the self-esteem and socioemotional development of students, they avoid children being labelled, recognizing the focused and temporary character of the difficulties that they face. The incorporation since the first years of schooling is especially important as it is a way of promoting the early detection of possible gaps or lags.
4.2. Textbooks and notebooks

The results of TERCE demonstrate that children that have personal textbooks and notebooks for each subject obtain greater learning achievements. The possession of resources itself does not guarantee a learning experience, however, other studies suggest that the supply of these materials – especially textbooks – have been useful as a guide of curricular implementation for teachers and students.

At the same time, the resources for students at the school level and the processes are related to the learning of students. It is worth mentioning that the resources, themselves, do not promote learning, instead learning is generated through the pedagogically appropriate use of resources (Rivas, 2015) establishing, this way, a kind of “base” on which quality learning processes can be developed in schools.

**Challenges**

The region has made great effort in the last 20 years to provide educational material for children. Despite this, there is still room for improvement. In the case of textbooks we can observe two phenomena (see Figure 20). On the one hand, in the majority of countries, more than 70% of third grade students have a textbook for literature and another for mathematics. Dominican Republic is the only case below this threshold, as 60% of students claim to have a textbook. On the other hand, we can observe consistently, in comparison with third grade, a significantly lower percentage of students from sixth grade have a textbook. Although it is not clear, this could be due to a policy focus in the first years of educational processes, which subsequently are not further developed. While there is high variability between countries, the total of the region indicates that only half of the students in the sixth grade have textbooks. It is worth pointing out that in the case of science it could be expected that students don’t have a book. The curricular structure of some countries in some the cases suggests that they have books of a more general nature that include, for example, social studies and science in the same book. However, it would be expected that a similar portion of students of third and sixth grade dispose of books of reading and math, which does not happen.

**Graph 20.** Percentage of students who can access to their own textbooks, according to discipline and degree

<table>
<thead>
<tr>
<th>Country</th>
<th>Math</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>95</td>
<td>90</td>
</tr>
<tr>
<td>Brazil</td>
<td>96</td>
<td>94</td>
</tr>
<tr>
<td>Chile</td>
<td>94</td>
<td>92</td>
</tr>
<tr>
<td>Colombia</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>91</td>
<td>89</td>
</tr>
<tr>
<td>Ecuador</td>
<td>92</td>
<td>90</td>
</tr>
<tr>
<td>Guatemala</td>
<td>93</td>
<td>91</td>
</tr>
<tr>
<td>Honduras</td>
<td>94</td>
<td>92</td>
</tr>
<tr>
<td>Mexico</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>96</td>
<td>94</td>
</tr>
<tr>
<td>Nuevo Leon</td>
<td>97</td>
<td>95</td>
</tr>
<tr>
<td>Panama</td>
<td>98</td>
<td>96</td>
</tr>
<tr>
<td>Paraguay</td>
<td>99</td>
<td>97</td>
</tr>
<tr>
<td>Peru</td>
<td>95</td>
<td>91</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>96</td>
<td>93</td>
</tr>
<tr>
<td>Uruguay</td>
<td>97</td>
<td>95</td>
</tr>
<tr>
<td>Total countries</td>
<td>98</td>
<td>94</td>
</tr>
</tbody>
</table>

Percentage of students who have of own textbook by subject, third grade

Math
Language
The availability of school notebooks shows similarities with the distribution of textbooks. In all countries, more than 70% of students in third grade have a notebook, except for Ecuador, where the percentage is just below the mentioned limit. Students in sixth grade register a lower possession of notebooks in comparison with those of third grade, except for in Ecuador and Dominican Republic. As is the case for textbooks, in the case of availability of notebooks there are important proportions of students that do not have this basic input for school work, and these percentages are higher amongst sixth grade students.

**Source:** Own elaboration using TERCE’s date base.

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**Policy recommendations**

Materials themselves do not guarantee learning, but the fact that each student has a notebook or textbook eases learning and maximizes academic performance. We have background of some countries of the region which have led in the production and distribution of free textbooks, Mexico being the classic example for having this policy since the 60’s (Rivas, 2015). In Mexico, the so called National Free Textbooks Commission (CONALITEG) is
a public institution that is charge of the printing and distribution for the whole educational system. Other countries of the region, such as Brazil and Chile, have developed policies for the acquisition of textbooks for their free distribution in schools.

Even in the countries with extensive distribution programs of books and materials, an important student percentage does not access these supplies. Because of this, it is necessary to reinforce and monitor the implementation of these programs to assure the materials arrive to every single student in the country. It is a priority to offer special attention to the most vulnerable groups of the population which, because of costs and matter of geographic distance, might not have access to these materials. It is recommended that all the countries in the region, especially those with greater educational quality problems, establish a subsidy program that allows for free delivery, as well as the implementation of a distributional system that reaches rural and/or remote areas. This will guarantee a level of basic educational coverage and quality to the whole system, which is considered an important goal, especially for countries that are less advanced in the continent. An interesting example is presented in Box 29, which describes the National Textbooks Program of Brazil.

> Box 29. National Text Book Program (PNLD)

The purchase and distribution of textbooks to all public schools of Brazil is carried out through the National Textbooks Program (PNLD), published in the Official Journal of the Union on January 27th, 2010. Its main objective is to support the pedagogical labor of teachers through the assignment of textbook collections for students in basic education.

The supply of books available has expanded in the last couple of years, incorporating book classes for levels one and three; specific textbooks for the primary education classroom in rural public schools; books for youth and adults involved in literacy programs; and thematic books. During all years, textbooks are obtained and distributed to all students of a determined segment, which may include: the first years of primary school, the last years of primary or secondary school. Excluding some books for personal maintenance, the textbooks assigned through the program must be treated suitably and returned after their use, with the purpose of them being sent to other students the following years. The PNLD is also designed to help students with incapacities, having versions in braille and in Brazilian sign language (LIBRAS).

*Source: Education for All Report (2015).*

Finally, it is important that the strategies of delivery of materials are relevant and diversified. Relevant, because it is necessary for them to adapt to the context and traits of the students, to make them attractive, interesting and stimulating their real use in school as well as outside of school. Diversified, because it is necessary to construct a set of materials that not only includes physical books, but also other types of didactic materials at low cost to distribute, such as maps, posters, or info graphics.
4.3. School infrastructure and services

School resources, like infrastructure, installations and basic services, are important as much for the children’s welfare and security, as for establishing a minimum base of operation in schools to encourage learning.

Challenges

The material resources of schools (infrastructure, installations, and services) influence the academic results of students and graph their learning conditions. They are usually distributed unequally inside of educational systems and less available in schools in which economically and socially disadvantaged children attend.

The availability of infrastructure is significantly tied with the results of students in 91% of the subjects, grades, and evaluated countries, before considering their socioeconomic level. However, once this last variable is taken into account, the significant relation that is observed between achievement and infrastructure in the subjects evaluated in third grade for the majority of countries and –less- in sixth grade disappears. The services and infrastructure index of the school that is presented in Figure 22 demonstrates a wide variety in the availability of these resources amongst countries exists. In general, this index has a lower magnitude in educational systems with a high proportion of small schools in the rural area, such as in Guatemala, Honduras, and Nicaragua. Certainly, the infrastructure endowment is also related with the economic capacity of the country.

Graph 22. Average rates of school infrastructure and services for third grade

Source: Own elaboration using TERCE’s database.

The infrastructure index includes the following installations: director’s office, additional offices, conference rooms for teachers, gym, computer room, auditorium, arts and/or music room, Nursery, science labs, school library, teacher’s table and chair, drain or sewer, fax, bathrooms in good condition, Internet connection, garbage collection and student transportation.
Policy recommendations

Infrastructure and service provision, own their own, do not guarantee the quality learning, but do offer minimum security and hygienic conditions for students. Different construction forms and techniques can be included, adapted to the local traditions and weather, which can include the use of alternative energy and sanitary quality installations specifically adapted to rural or geographically dispersed areas. An interesting strategy that some countries of the region have applied (such as Chile, through the “Fondo de Apoyo a la Educacion Publica”, Support Fund for Public Education, FAEP) is the application of specific funds for the construction or maintenance of school infrastructure, particularly for public schools.

This measure is specifically important in those countries that are in initial educational development stages. It allows them to consolidate basic infrastructure for the supply of the educational service. The PROMINE program of Honduras offers an example of construction and maintenance program of infrastructure that meets with some of the highlighted features (Box 30).

> Box 30. Program for the Modernization of Educational Infrastructure and its Local Management (PROMINE)

The Modernization of Educational Infrastructure and its Local Management Program, under the coordination of the Ministry of Education, is executed by the Honduran Social Investment Fund (FHIS). Its objective is to improve the access of the least favored students to quality educational centers and that way contribute to increasing the efficiency and quality of the educational system. It is expected to achieve these purposes through the construction of new schools and the reinstatement of already existent centers, additionally contributing to the electrification of the sanitary installations and school equipment. The PROMINE applies pedagogical criteria in the design of works and promotes the awareness of the linking of good educational quality with stimulating and adequately conditioned school environments. On the other hand, the program seeks to strengthen education through Educational Networks and achieve, with this instrument of school management, better educational quality and expand coverage in rural areas. Finally, the program is implemented with the participation of the local community through the “Projects Executed by the Community” modality. The program was developed in 77 municipalities and involved more than 400 educational centers.


In the case of countries with greater development levels of their educational systems, the improvement of infrastructure should emphasize in upgrading the existing spaces, for example, through the beautification of school spaces, the construction of mobile pedagogical spaces or the generation of new spaces for the innovation of school practices, adapted to the levels (stages) and educational needs of the students.
4.4. Time Use

Effective teacher time use has four components. In the first place, it is necessary to have an academic calendar that clearly stipulates school days of the year and the length of the school day; and the calendar needs to be completed. Secondly, the continual presence of students in school and the classroom is required in order to be able to make the most of the time. Thirdly, the continual and punctual presence of teachers is indispensable. Lastly, teachers need to use class time effectively.

Challenges

The time dedicated to teaching in school is related to the number of days in the school calendar and the length of the school day. One way to see this data is with the number of nationally regulated classroom hours for students over the course of the school year, and contrasting this with the records of students who participated in the TERCE test. As can be seen in table 11, student classroom vary between primary, elementary and secondary school. Additionally, class time has a cumulative influence.

The difference between the countries with the most and least class hours is 455 classroom hours per year in primary school, 756 in the first cycle of secondary school and 959 in the second cycle of secondary school. If this tendency repeats itself over the six years of primary school, it means that that the country with the longest school calendar has 2730 hours more class hours, equating to a little more than two years of schooling. It is worth clarifying that, as will be analyzed later, classroom hours are a very important factor in the learning process. However, this dedication of time must be accompanied by quality learning practices, engaging pedagogical methods that promote basic skills like critical thinking. On the other hand, it is possible to be in a situation where many hours are spent in school, without being very fruitful for the student development.


Table 11. Primary and Secondary Education. Organization of teaching time of educators in public establishments

<table>
<thead>
<tr>
<th>Country</th>
<th>Hours of Schooling per year</th>
<th>Weeks of Schooling per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>1st cycle of secondary</td>
</tr>
<tr>
<td>Argentina</td>
<td>680</td>
<td>1368</td>
</tr>
<tr>
<td>Brazil</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Chile</td>
<td>1087</td>
<td>1087</td>
</tr>
<tr>
<td>Mexico</td>
<td>800</td>
<td>1047</td>
</tr>
<tr>
<td>Paraguay</td>
<td>736</td>
<td>819</td>
</tr>
<tr>
<td>Peru</td>
<td>869</td>
<td>1013</td>
</tr>
<tr>
<td>Uruguay</td>
<td>632</td>
<td>612</td>
</tr>
</tbody>
</table>

As was previously presented in this document, a high percentage of Latin American students show a chronic level of truism. Students who miss 10% of the school year are in this condition and are at Educational risk (Balfanz & Burns 2012). Students who miss school frequently lose innumerable learning opportunities and have lower learning outcomes. The TERCE results indicate that being absent from classes is negatively correlated with academic achievement. Missing 2 or more days per month, on average, is synonymous with chronic truism representing, 10% or more of the approximately 20 days of class in each month. A range of 16% to 43 % of third grade students miss two or more school days monthly, a figure that oscillates between 13% and 39% for sixth grade students. The phenomenon of chronic truism means that students spend less time learning and run the risk of leaving themselves empty of knowledge, causing difficulties in reaching more complex curricular objectives that require a solid base. Faced by chronic truism, school and teachers can carry out relatively simple pedagogical interventions which help minimize student absences. In this line of thought, some countries in the region have generated mechanisms for detecting truism (e.g. early alert systems) or have generated individual or collective extra-academic incentives (retention bonus) as a way to support schools in developing remedial actions that can prevent children from dropping out of school.

Teacher attendance and punctuality is notable for its high correlation with scholarly achievement. Students prepared by teachers who are habitually present from the start of class tend to show better results. This reveals the importance of valuing and using time effectively in the school as teacher truism and unpunctuality means that students have less hours of learning oriented activities. According to figure 24, there is a percentage of teachers (less than 10%) who misses classes regularly. Truism is similar in rural and urban public schools.
### Graph 23. Percentage of teachers who miss class by school grade and category.

<table>
<thead>
<tr>
<th>Country</th>
<th>Third Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Chile</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Colombia</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Costa Rica</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Dominican Republic</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Ecuador</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Guatemala</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Honduras</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Nicaragua</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Nuevo Leon</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Panama</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Paraguay</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Peru</strong></td>
<td>Rural Urban Private</td>
</tr>
<tr>
<td><strong>Uruguay</strong></td>
<td>Rural Urban Private</td>
</tr>
</tbody>
</table>

Legend:
- No
- At times
- Yes
Class time is not being used completely, judging from the TERCE results. There are countries where 10% or more teachers arrive late to class or leave before the stipulated time. There are variations between countries, such as Costa Rica and Paraguay, which are notable for having high rates of time use of both in third grade and sixth grade.
Graph 24. Percentage of teachers who arrive late or end class early by grade.
### Percentage of students that arrive late to class, third grade

<table>
<thead>
<tr>
<th>Country</th>
<th>Rural</th>
<th>Urban Private</th>
<th>Urban Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuevo Leon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Percentage of students that arrive late to class, sixth grade

Argentina
Rural
Urban Private
Urban Public

Brazil
Rural
Urban Private
Urban Public

Chile
Rural
Urban Private
Urban Public

Colombia
Rural
Urban Private
Urban Public

Costa Rica
Rural
Urban Private
Urban Public

Dominican Republic
Rural
Urban Private
Urban Public

Ecuador
Rural
Urban Private
Urban Public

Guatemala
Rural
Urban Private
Urban Public

Honduras
Rural
Urban Private
Urban Public

Mexico
Rural
Urban Private
Urban Public

Nicaragua
Rural
Urban Private
Urban Public

Nuevo Leon
Rural
Urban Private
Urban Public

Panama
Rural
Urban Private
Urban Public

Paraguay
Rural
Urban Private
Urban Public

Peru
Rural
Urban Private
Urban Public

Uruguay
Rural
Urban Private
Urban Public

Source: Own production, based on data from TERCE.
An extended school day and calendar is not very useful if the time students are in school is not used to support learning. The most recently available data from the region shows that class time use is not very effective. According to Figure 26, Mexican, Peruvian, Honduran, Brazilian and Colombian teachers use between 50 and 65% of class time for academic activities, below the 85% suggested by the Stallings scale, for measuring this indicator. This implies that there is an underutilization of 20 to 35% of time available for classes.

The largest portion of lost class time is directed at classroom management tasks, taking attendance, erasing the board, correcting homework, or giving out papers. Some recommendations are suggested below for this issue, the amount of class time teachers dedicate to correcting homework is notable. This activity should be restricted to time outside of class, but can be mediated by the fact that teachers’ days are completely dedicated to class time.

**Graph 25.** Average time dedicated to instruction in Latin American countries and the Caribbean

![Graph 25](image)

*Source: Burns & Luque (2014).*

Figure 26 shows the breakdown of time that teachers dedicate to unrelated activities. The indicator shows, notably, that teaches invest the largest portion of time to activities outside of the classroom. This usually means teachers not initiating their class on time or finishing class early (Burns & Luque, 2014). This indicator is also influenced by class interruptions, requests for information and requests for teachers to visit the administration offices.

**Graph 26.** Breakdown of teachers’ time dedicated to unrelated activities, by country

![Graph 26](image)

*Source: Burns & Luque (2014).*
Policy Recommendations

There are different facets regarding use of classroom time that everyone should consider as part of the measures for improve the effective use of teaching and learning time in schools. In the same way, each country and every school should undertake initial efforts for diagnosing the most critical points.

The first possible opportunity for improving time use is to assure that there is an adequate school calendar and day, which can be done both at the school and public policy level. However, as can be recognized in the challenges section, setting of the official school calendar does not guarantee that this is accomplished adequately. Take measures to use time well in schools is crucial and a good example of this is the initiative “El Buen Inicio del Año Escolar” (Good start to the school year), that was carried out in Peru and which is explained in Box 31.

> Box 31. Good Start to the School Year in Peru

The initiative **Good Start to the School Years** has been rolled out since 2012, and is aimed at investing in schools not suitable for receiving students at the beginning of classes, through the identification and prioritization of conditions contribute to improvement of the learning process. In order to achieve this objective, the program encourages timely registration without conditions so that students are present from the first day of classes, that there are teachers hired and in the classroom on time, the availability of school textbooks and materials at the beginning of the school year, development of best practices for receiving and treating students and building an action plan to improve the learning process in each participating school.


Regular teacher attendance of at school should, in the first place, be regulated by law. This is especially critical in countries that show consistently low levels of teacher attendance. Some local policies that have become indispensable are: teacher replacement mechanisms, making teacher work schedules flexible, constant monitoring of teacher attendance, applying current labor laws in each country where there are unjustified absences, and generating incentives to promote regular school attendance where access is difficult. This last measure, present in countries with higher levels of development, such as Chile and Uruguay, should be considered incentives linked especially to particular schools, and not be converted into employment benefits, which teachers take with them once they leave the aforementioned educational establishments. In this respect, Box 32 features two programs that are aimed at improving teacher attendance in rural settings, which is where these challenges are most frequently encountered.

> Box 32. Teacher attendance

The **Roots Program** in Mexico is long-standing and offers economic compensation to teachers who work in rural sector schools. This compensation does not make up a direct part of the teacher’s salary but is linked to the community and the school.
This program tries to retain teachers in rural areas for a minimum of two years, residing in the community where the school is situated. In this way, they are trying to reduce the teacher’s commute from their residence to the community where the school is located. The hypothesis with respect to teacher truism, in this case, is that teachers do not turn up to classes because of time spent commuting when they live outside of the community.

The Better Education through time in Class Program (META) was a pilot project from the Peruvian Ministry of Education in the year 2012, which was effective in increasing teacher attendance in rural area schools. This program offered teachers a monetary incentive, which was approximately equivalent to 8% of their salary. The program awarded individual and group incentives (if 80% of the teachers achieved the individual goal everyone received an additional amount and the principal only received incentives if all the teachers reached the goal).

Source: Tamaulipas Secretary of Education and (Cueto, Torero, Leon, & Deustua, 2008).

Recommendations for local implementation

Once regular attendance and student and teacher punctuality have been achieved, classroom strategies need to be incorporated to improve the effective use of classroom time. In this sense, adequate class planning is required, with materials available and organized previously (with a sufficient quantity of remunerated preparation hours) and the establishment of efficient routines with the educational purpose of distributing materials and transitioning between activities, which can be undertaken at the national level as well as the local level. Box 33 shows a distinct strategy for improving effective time use, organized at the national level but implemented and verified by each educational community.

> Box 33. Initiatives for improving the effective time use

Over the last decade, the Peruvian Ministry of Education has developed different initiatives to improve the time use in schools. The Learning Achievements for Elementary Students Education Program (PELA), which has the goal of developing quality improvement processes in Elementary and Secondary Education, provides for the incorporation of a pedagogical assessor within its parameters, which among other tasks coordinates proper use of time and intensification of teacher hours with the teacher. Likewise, it seeks to optimize relevant pedagogical use of materials and resources available in the classroom (Class workbooks, textbooks and library) with the purpose of learning achievement. The preliminary evaluations of this initiative have shown promising results, above all in what is referred to as the coverage and learning process of students.

Source: Educational Report for all of Peru.
4.5. School Leadership

School leadership policies in schools have taken on a new relevance within education policy around the world. In general, the literature has focused on studying the relationship between educational leadership and teacher performance (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004, Robinson, Hohepa & Lloyd, 2007) and the impact of different forms of leadership on the student academic results. A significant impetus in this respect is the most recent McKinsey report, which concludes that the characteristics of principals is the second most important factor in accounting for academic results and at the same time can be considered as a contributing factor to the efficiency, equity and quality of education systems (Barber, Whelan & Clark, 2010; Litz, 2011; Taipale, 2012).

Challenges

Regarding processes in schools, evidence from the LLECE studies do not show a general association between executive leadership or the work environment with learning outcomes. In the TERCE, the results show that the work environment relates significantly with achievement in only 10% of countries, disciplines and grades evaluated. The monitoring and feedback about teachers’ practices from principals, or a facet of the principal’s pedagogical leadership does not frequently relate to academic performance either. Furthermore, the study reveals that in half of the situations this practice is associated with inferior results in the student achievement, which could be accounted for by two phenomena. On the one hand, it is possible that in some cases the directors visit classrooms where they see more problems, while on the other hand they lack the fostering of a work culture and organization in which perfecting teacher practices through monitoring and mutual feedback serves to improve teacher work and in the end, the learning process.

The most recent analysis of educational leadership in the region (Weinstein, Hernandez, Cuellar, & Flessa, 2015) show that policies oriented at school directors are constantly moving and changing in countries in the region, finding themselves in different stages of implementation and development of actions, programs and policies. Despite these differences, in general, the developed policies, to date, have fallen short of a systemic focus that incorporates the formation of performance, selection, evaluation and workplace standards in a coherent fashion (internal and external) y aligned with each other. Additionally, preliminary analyses have shown that policies for directors have not dealt with the diversity of schools that are found in education systems in the countries, as much of them are taken out of their local context (Weinstein & Hernande, 2015; Weinstein, Munoz & Hernandez, 2014).

Elsewhere, specific tendencies are detected in the field of executive educational leadership (Weinstein et al, 2014), which are important to consider for the analysis for the situation in the region: a) there is a variability of principal performance contexts, with important groups of principals who carry out their work in rural sectors; b) the institutions in charge of policy for directors are precarious and have limited specialization, seeing as this task normally falls back on organizations in charge of professional development and workplace conditions of teachers; c) School principals do not have professional associations that allow them to legitimize themselves as a key actor in school systems and generate professional practice standards; d) In the region, the elaboration of behavioural frameworks and performance standards has gathered impetus but...
is disconnected from policies in force and are scarcely considered in the evaluation of principals; e) the principals, who in general are given the responsibility of operating the school, are found in different systems to be accompanied by other members of the administrative team who are off the radar of the education policy and who carry out administrative functions, of discipline, fellowship or pedagogical supervision; f) the principals, with a few exceptions, do not have the power to select or hire the other members of their administrative team, and; g) the teacher selection process has been modernized, including technical requirements and previous experience from applicants, connected with improving decision making processes and local participation.

Given the consistency of international research, which shows the importance of administrative leadership in developing a healthy coexistence, organizing the school administration and curriculum and promoting best practices, specific recommendations are submitted below to promote administrative leadership in schools.

**Policy Recommendations**

The strengthening of educational leadership in the region implies a series of challenges, which should be tackled systematically. Firstly, specific, coherent and well-articulated policies are required, among other measures, which promote administrative leadership in terms of statutes, working conditions, functions, performance standards, initial and continual training, selection, promotion and evaluation (Weinstein et al., 2014). A central and primary aspect of these elements is the creation of principal standards, which permit the organizing of the framework of functions and responsibilities of these actors in the school system. Table 12 compares the characteristics of these standards in three countries (Chile, Colombia and Ecuador), which brings to light heterogeneousness of the situation in the region. In this way, it is shown that school principals in the region have, at least, 20 different functions and a huge quantity of dissimilar tasks, which include everything from the administration of personnel to infrastructure and equipment, in addition to educational management responsibilities, human resources, tending to parents, management of education plans and projects, participation and school relationships to number just a few. This amalgam of responsibilities contrasts with practically zero involvement they have in the assessment, supervision and monitoring of teacher performance in the classroom which constitutes one of the largest challenges in the region.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Year</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>2004</td>
<td>• Leadership</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Curriculum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Resource management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Organizational climate</td>
</tr>
<tr>
<td>Colombia</td>
<td>2003</td>
<td>• Functional Competencies (management, instruction, administration)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Behavioral competencies</td>
</tr>
<tr>
<td>Ecuador</td>
<td>2011</td>
<td>• Leadership</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Curriculum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Resource management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Organizational climate</td>
</tr>
</tbody>
</table>

Secondly, Institutional development, aimed at fostering administrative leadership, should create specialized training policy and knowledge transfer research and development units for principals (which is beginning to take place in Chile through the creation of two Educational Leadership Centers, developed by consortiums of universities) and given the scarcity of information about principals, regular data collection processes need to be designed to allow the adequate profiling of directors and their working conditions. Complementarily, it is necessary to foster the creation of professional associations for directors where they can generate opportunities to share advancements in the profession and disseminate lessons (Weinstein, 2014), as well as opportunities for professional collaboration, for example, the strengthening of work networks among directors, which allow the sharing of best practices and promote synergistic processes.

Furthermore, it is necessary to review the functions and responsibilities of principals, prioritizing those that relate to pedagogical and organizational leadership with the purpose of promoting learning. These measures should foster a higher level of principal involvement in the evaluation and supervision of teachers work and give them staff selection duties, at least for those who make up part of the administrative team (Weinstein et al., 2014).

Fourthly, reviewing the professional development path to become a principal is crucial, in a way such that it is not only reserved for the years before teacher retirement. Systems can be designed that distinguish directors according to their degree of experience and in this way, allow greater diversity (Weinstein et al., 2014), incorporating pathways in the system where the administrative function is to be understood as the “final step” in a teaching career (Oplatka, 2004).

Lastly, professional training process need to be designed that, while incorporating specialized training processes before assuming the role and in-service professional development, consider other apprenticeship and induction strategies for principals, some of which have emerged strongly over recent decades through mentoring and coaching. Box 34 highlights some director training programs which, in some processes, have incorporated these tools, organized on a national scale.

> **Box 34. Management Training Programs that include mentoring or coaching processes**

Over the last few years, different countries in the region have implemented management training programs that incorporate coaching or mentoring processes. For example, the **Education Leader Training Program** initiated in 2012 and developed by the Better Cordoba Foundation in Argentina. The principals who took part in the program were trained in best management practices, which translated into more effective and efficient institutions. The activities incorporate workshops between counterparts, consisting of the analysis and discussion on a specific issue, starting from a dialogue about experiences and knowledge, based on the initiatives of the participants, accompanied by a practical demonstration.
Similarly, the Transformative Leadership Guidance Program, coordinated by the Business Leaders for Education in Colombia Foundation, has sought to strengthen and develop director competencies by improving their staff, pedagogical, administrative and community management since 2008. Incorporating active participation methodologies, combined with intensive courses and management meetings. Specifically, individual and group coaching process are developed organized around three components: a) institutional transformation, which seeks to consolidate the transformative action that the director and his team has initiated; b) learning exchange, which aims to have the directors and systemize and pool their transformative experiences; and c) follow-up, which supports the collection of information about the experience of improving institutional quality.


4.6. Teaching Practices

Teaching practices in the classroom, the other key process in schools, have shown a robust relationship to learning (Chrispeels, Andrew & Gonzalez, 2007; Elmore, 2010; Gonzalez & Ballei, 2013; Hopkins & Reynolds, 2001; Muijs & Reynolds, 2011; Raczynski & Muñoz, 2006; Rivers & Sanders, 2002; Rowe, 2007). The TERCE results reiterate the importance of teaching practices in the classroom for the academic achievement of students in the region.

Challenges

The evidence shows that learning processes are beneficial when relationships between actors are cordial, collaborative and respectful. Likewise, a strong association between learning and teaching practices is observed which pays attention to students’ uncertainties and which monitors whether students understand curricular contents and are developing the expected skills.

Teaching practices can be conceptualized in terms of three complimentary domains: emotional support, classroom organization and pedagogical support (Pianto, La Paro, & Hamre, 2008). Emotional support refers to the classroom environment, organization is linked with productivity and conduct and pedagogical support with teacher interventions in carrying out learning processes and superior thinking skills.

In third grade, the TERCE measured emotional support as a way of understanding the classroom environment. In Figure 28 it can be seen that between 20 to 40% of students indicated that students bother each other in their class or that there is teasing among classmates. This suggests that there is a significant margin for improvement in establishing standards and patterns of student fellowship in a classroom more inclined toward supporting the social and emotional development of students.
Graph 27. Socio-emotional climate in the third grade classroom

Source: Own elaboration using TERCE data.

In sixth grade many emotional aspects were evaluated regarding classroom teaching. The results, which are presented in Figure 29, highlight that between 60 and 80% of students have teachers who consistently motivate them to continue studying and to persevere when the material is difficult. Moreover, between 70 and 80% of students indicate that teachers look for different ways of explaining when they haven’t understood something. Finally between 55 and 85% of students indicate that teachers help them identify their errors. In general terms, this could mean that there is a good foundations for teaching practices, although the consistency of these practices needs to be improved in order to support all students’ learning and emotional support needs.

Graph 28. Teaching practices for learning development in sixth grade
Policy Recommendations

Improving teaching practices is an arduous and long-term undertaking. As was observed in the introduction, teaching capacities and teaching practices depend on the development level of the education systems in the countries. Thus, in order to improve teaching practices systemic policies that are oriented at all teachers in the school system and that structure initial and continual teacher training are necessary. In this sense, the elaboration of professional standards or other organizational instruments for the teaching career and profession are indispensable elements. These frameworks should be aligned with educational reality of the country, so as to say, they should be aimed at improving practices in order to move towards the next level of capacity development. Establishing ideal standards of practice doesn't help very much if they are far away from the reality of education systems. More than technical documents, documents oriented at building solid foundations for teaching step by step are required (Box 35). The Chilean Framework for Good Teaching is a document that organizes various evaluation, promotion and teaching practice continual improvement processes, forming a relevant example for the group of countries in the region.

> Box 35. Framework for Good Teaching in Chile

The **Framework for good teaching in Chile** is a policy document oriented towards teaching practices in the classroom. This document has structured initial and continual teacher training in this country and has widely disseminated what studies say about classroom practices show, above all, the intensive time use. This framework includes four domains. This first is teaching preparation, which includes contents, teaching approach, the students' knowledge as well as class planning and organization and evaluation strategies. The second domain corresponds to creating an environment conducive to learning and points out how teachers can establish a suitable educational environment and fellowship rules, set high expectations and have an organized work environment. The third domain relates to teaching for student learning, and includes clear communication of teaching ob-
jectives, implementation of challenging and meaningful teaching strategies, optimization of available teaching time, the promotion of critical thought and at a higher level the evaluation and monitoring knowledge acquisition of students. Lastly, the domain of professional responsibilities which includes reflection about the practice, having suitable relationships with colleagues, the responsibility of giving guidance to students, building fruitful relationships with parents and perpetually updating of the profession. This type of framework can help guide the teaching practice in different areas in order to improve quality and among these time use.

Source: Framework for good teaching, Chile.

Recommendations for local implementation

Teaching practices improve substantially when programs that allow for all teachers and students to learn, especially through iterative processes and centres of pedagogical innovation, are implemented involving a coming together of the education community. It is about having programs with clear pedagogical guidance, that have a notion of transparency true to best practices that offer pedagogical models that are bought into and proven efficient. In Box 36 the Mentoring Networks model is described, which was implemented in Mexico that can be understood as an innovative example rolled out on a local scale.

> Box 36. Mentoring Networks

Mentoring networks is a program implemented in Mexico which seeks to improve the environment and educational achievement in public schools. It allows teachers to perform professionally and students to reach academically and personally valuable learning achievements through a comprehensive and innovative methodology which is nourished by a new form of pedagogical understanding. Mentoring networks’ methodology works through personalized accompaniment with a mentoring relationship, where the teacher offers issues to their students and the students choose based on their interests. Throughout the process, the teacher serves as the mentor to the student and guides the learner towards achieving a greater depth of knowledge so that in the end, the student can decide to become a mentor for others interested in what they now master. This way, through teaching others, students reinforce and enrich their own learning. The project had its conceptual beginnings from 1997 to 2003; however, its implementation effectively began in 2004-2005 with the Learning Community model applied in four primary schools in the General Directorate of Indigenous Education. In 2011 it became an education policy of the State of Mexico through which improving the results of the National Evaluation of Academic Achievement in Educational Centers (ENLACE) test is sought and has been achieved, specifically in primary and secondary schools which in 2007, 2008 and 2009 had the lowest levels of educational achievement.

Source: Organización Redes de Tutoría (http://redesdetutoria.org/estrategia/).
The purpose of this document is to provide empirical evidence for making policy decisions about education policy aimed at guaranteeing the Right to a Quality Education for all children in the region. Throughout this volume, firstly, conceptual models for understanding the policy challenges for different perspectives have been reviewed and secondly, policy recommendations have been presented that emanate from the main findings of the study of associated factors of TERCE. Following from this, the final reflections relevant to the recommendations presented in the text are shared.

**Conceptual models**

Policy decision making should be based on evidence and anchored various conceptual models that allow reality to be interpreted in an appropriate manner. Conceptual and theoretical models are representations of the reality where the central attributes that underlie a phenomenon or problem are highlighted. That is to say, the models offer a lens for studying reality but do not represent it in its totality. For this reason it is necessary to count on complimentary models in order to build a more sophisticated interpretation and illuminate different facets of these phenomena.

In Chapter 1 three types of conceptual models for decision making about education policy were presented. Firstly, the ecological model recognizes that students receive educational services that are embedded in social systems and that interact with each other in complex way. Education policies should consider this embedded structure in its defining moment. The ecological model shows that students are embedded in schools which are the social institutions directly in charge of satisfying the Right to Education. However, school establishments are also set deep within communities with specific institutional, social and economic environments. In this way, the schools respond to local authorities and serve populations with needs that are linked to characteristics of the context in which they live. Each school has the obligation to produce a complex alchemy with the objective of encouraging the student’s
holistic development, following the official curriculum and in turn taking into consideration the cultural, social and economic characteristics of the students. School teachers and directors are in charge of carrying out pedagogical adaptations and implementing them in order to maximize growth opportunities of the students. In addition to the environment where the school is situated, the ecological model also recognizes that functioning, norms and customs of the education system impose a performance framework which it is subject to. Lastly, there are also social phenomena that cover regions or entire countries, which outline a combination of characteristics and social processes in which schools are immersed and to be ignorant of these is equivalent to not taking grasping an important part of the reality. In the region, socio-economic inequality and poverty, which still affect significant sectors of the population, are two attributes of the context that should be considered when designing education policies.

Secondly, a model that helps to understand how education policy is development is required. This type of conceptualization avoids falling into fallacies with respect to the operation of policy in reality. With the purpose of offering an interpretive framework for understanding how policy is brought about, chapter 1 offers and explanation of top–down and bottom-up implementation models, as well as a model that combines both approaches. In this way and in concordance with the recommendations form the text, it is recognized that political decisions by central authorities go through interpretations throughout the chain of implementation and are molded to fit use and customs, resources and capacities already in place. As well, it shows that specific programs of action can be carried out by local actors who, in cases of being successful, can eventually transform themselves into national policies. The conceptual framework for implementation serves to emphasize that the assumptions used at the time of designing education policy cannot be sustained by reality and that the actors in charge of carrying them out or the benefiting population react in a manner different from the original prediction. For this reason, it is essential to maintain constant monitoring of the implementation and results of initiatives that are put into practice.

Countries in the region present different configurations in their political organization, which range from nation states with central governments to subnational authorities with different levels or autonomy. Defining education policy, however, tends to be the responsibility of central governments or sub-national in the case of federated countries, and follows a top-down logic. However, as can be seen in this document, there are also innumerable initiatives of a local nature that complement education policy and seek to offer solutions to local problems, those that will not always be surmountable at the national level and have more narrow objectives and dimensions.

Thirdly, an approach that allows for the distinguishing of short, medium and long term in the work of thinking through the development of education systems is indispensable. For this purpose two different models are presented. On one hand, it analyzed the stages of educational development of countries following from the McKinsey Report’s schema (Mourshed et al, 2019), which retrieved lessons from the progress of 20 education systems from around the world and reveals the main policy measures that have put into place in order to advance in each of the five stages of development set out by this model. Two of the central messages behind this framework are: a) that education policy should take into consideration capacities already in place in each education system; and b) that countries aren’t able to skip stages and then count this as capacity building, which is a process that takes time. When using this
framework it is clear that the ideal to be strived for shouldn’t be confused with immediate measures to take. Being in a position to build a solid education system requires work on two parallel tracks. The first consists in managing education policy relevant to the level of capacity development already in place in the education system. The second track is aimed at building capacity that will open doors for the next staged of educational development in the country. In other words. It is necessary to effectively manage the current education system at the same time as measures are taken to build capacities that allow advancement towards the next phase of development.

The case of Finland offers a second model for understanding policy in different time-frames. In the 1980s, Finland began a long process of reform in a social and economic development context very different from the current one in the region. However, strong Finnish support for the development of teaching capacity offers a complimentary perspective to the McKinsey report for thinking about education reform. The case of Finland shows how, in a period of 30 years education was reformed by first reformulating the theoretical and methodological bases of education establishing a clear conception of knowledge and learning and, in a significant way, defining practical methods for teaching the curriculum according to the conceptual definitions adopted. In the second stage, the reform was concentrated on defining a set of shared education values, the creation of learning communities and networks, such as the establishment of methods of evaluation in the classroom in order to support the growth of students. Finally, in the decade of the 2000s, Finland changed the structure of elementary education. Improving productivity was proposed with a view to reaching better results with fewer resources and finally, the establishment of a few indicators tracking quality.

The countries of Latin America and the Caribbean find themselves in a stage of educational development which is showing poor results and has incipient capacities in place. Chile, Costa Rica and Uruguay are countries, judging only from learning results that would be able to bring something of benefit to capacity building in the school system. This is to say that the region still faces the challenge of building elementary capacities in terms of teacher training and practice, education financing, transparent monitoring of education policy and evidence based decision making. Likewise, the countries of the region require alignment of their policies so that they aim at the same objectives and manage to mobilize school systems towards the attainment of more educational opportunities for students, better learning and less inequality.

In summary, the conceptual models presented offer a panorama of the systemic nature and the interconnectedness of society, education systems, schools and students. There are factors in each of these systems that influence learning results and should be taken into account in education policy. Complementarily, a perspective with respect to the implementation of policy is offered in order to understand that these are subject to the twists and turns of decision making and interpretations that distinct educational actors generate from the ministries of education to the classroom.

Finally, models are presented that allow for taking temporal distance and looking beyond the short term, those which help to understand that the task of building solid education systems are phased and long-term.
Challenges and Recommendations for Education Policy in the region

The TERCE results eloquently show some of the main challenges that confront the school systems of the region in order to effectively fulfill the right to a quality education for all. More than a final reflection, right away a brief summary of education policy challenges and recommendations is presented. To serve this purpose the text is organized in a similar way to the document, beginning with the context, following with the education system and afterwards the schools.

In each of these categories the main policy challenges and recommendations are summarized. In the outer circle of the ecological model the context is found, which refers to the social, economic and cultural characteristics of the country where the education systems and schools are inserted. Context is a key element to take into account for education policy in Latin America, given the wide social inequalities that exist in the region.

The **socio-economic inequalities** are the first aspect of the context that manifests its impact on educational results, and here there are three central findings. Firstly, the acknowledgement of socio-economic gaps and the elevated concentration of income in the countries of Latin America make it the most unequal region of the world. These characteristics of the environment where the education system is inserted undoubtedly affect educational opportunities. Thus, secondly, it is appreciated that the education systems of the region maintain low indexes of social inclusion in schools or, said in another way, schools are segregated socio-economically. Ultimately, students from different socio-economic groups have little probability of being classmates in the same school. Thirdly, and related to the previous, learning inequalities between schools represent between 18 and 64 % of total disparities. The complement for arriving at one hundred percent is represented by the inequalities in academic achievement among students from the same school. A significant part of the gaps between schools is explained by the differences in socio-economic level of the population that attends the school. Once again, socio-economic differences are transformed into educational inequalities that bring into existence a tight relationship between average socio-economic level of schools and academic achievement of the students that attend.

The **main recommendations for lessening the weight of socio-economic inequalities** aim at improving the focus on policy and diminishing the influence of external factors on learning. With respect to primary it is still necessary in the region to focus on those students who obtain the lowest learning results, which tend to be those who live in the most precarious conditions. Breaking the intergenerational circle of poverty requires focused and aligned policy in order to improve the learning opportunities and levels of schooling of these students. This refers to a coming together of social and education policy that can empower the education of these children. The focus makes sense in contexts of high inequality and scarce public resources, and this way families in poverty can be supported so that their children develop capacities that in the future will allow them to exercise their rights in a better way and define autonomously their life project. When the relationship between socio-economic level and educational results diminishes in a significant manner, it is then advisable to move to policies focused on universal measures.
Remedial programs focused on vulnerable populations are one tool that countries of the region have used in order to alleviate the effects of poverty on educational results. In the great majority of countries in the region there are remedial programs, which provide economic assistance to students’ families so that they can attend class, remain in school and receive nutrition, medical attention and satisfy other needs. Conditional transfers and school nutrition are the most common programs in the region. Other remedial programs which are found in the region include the provision of scholarships, supplying of textbooks and uniforms and transport from home to school (Treviño, Place, et al., 2013).

School nutrition programs have existed for many years (since the 1950s in Costa Rica), whereas conditional transfer programs are fairly new. All the countries have nutrition or feeding programs. Conditional transfer programs are based on human capital theories and capabilities, which seek to generate skills and capacities that allow for the families to exit poverty and keep themselves out of it. Usually, in said programs a monetary transfer or subsidy is given to the family under a condition such as regular medical checkups. The main initiatives in the sample of countries include the Opportunities Development Program in Mexico, Families in Action in Colombia (since 2002). The Solidarity Plan of The Dominican Republic (since 2004), TOGETHER in Peru (since 2005), the Go Forward Program in Costa Rica (since 2006), the My Family Progresses program in Guatemala (since 2008) and the TEKOPORA program in Paraguay (since 2009) (Treviño, Place, et al., 2013).

In addition to school nutrition and conditional transfers, the majority of countries also offer health programs that include prevention and treatment. Costa Rica offers medical exams in schools in order to detect and prevent nutrition and health problems. Nicaragua provides vaccinations in schools, and health education is integrated into the national curriculum. In Paraguay, health issues are also integrated are also integrated into the curriculum and there are dental and de-worming programs. In Peru medical attention has been offered inside schools since 2002 and there are campaigns to raise awareness about issues of health and nutrition for students and the community. In the Dominican Republic health and education programs are also integrated into schools and periodically offer de-worming treatment (Treviño, Place et al. 2013).

In accordance with a study of education policy carried out with a sample of eight participating countries of TERCE, it is observed that all have nutrition programs, the majority have student scholarship programs and almost all have preventative or remedial health programs (with the exception of Guatemala), have conditional transfer programs (except Nicaragua even though between 1998 and 2005 the Social Protection Network project was implemented which was discontinued) and in five countries there are nutrition programs (Costa Rica, Mexico, Nicaragua, Paraguay and Peru) (Treviño, Place, et al., 2013). The main results in this respect are summarized in Table 13.
The rural nature of populated settings is another challenge for education policy in the region, so it is treated as a generalized phenomenon. According to the TERCE data, in all participating countries, with the exception of Costa Rica, rural schools represent less than 30% of all educational establishments. This rural nature is correlated with a dispersed population and the necessity to create a large quantity of small schools – in many cases multi-grade – in order to bring educational services closer to places where students reside. This also entails an increase in the costs of providing education because of the impossibility of generating economies of scale which provide for, for example, the reliance on schools that offer complete primary education, with teams of teachers and administrators and sufficient infrastructure. In order to offer education to the entire rural population, models of providing services at low cost are commonly generated, that can limit the learning opportunities of rural students who, at the same time, have lower socio-economic levels in each and every TERCE country.

The recommendations for confronting the challenges posed by rurality go in two directions. On the one hand, before recognizing the contribution that remedial programs can make, it is indispensable to also empower schools with capacities and resources for dealing with the rural population through programs that strengthen the offer and take into account relative particularities and the intensity of the rurality and the main difficulties of working in these areas. This way, a combination of programs focused on supporting the students and strengthening teaching capacities in schools can contribute to improving educational opportunities. Such programs can be complemented by local initiatives with the participation of the locality to establish education programs that allow for the continuation of studies after compulsory education. In this way, students’ and parents’ expectations of educational mobility are built up.

Truism in schools is one of the most important problems that school systems confront as it reduces the amount of time students dedicate to learning. Chronic truism, which consists of missing 10% or more school days, substantially increases the risks of educational gaps. In the region between 13 and 43% of the students show traits of chronic truism.

The main devices for improving attendance are of three types. Firstly, policies that help foster the attendance of vulnerable students are required. Multi-sectoral support interven-
tions in school can bear interesting fruit. Secondly, from the classroom, teachers and the whole education community can and must implement different measures in order to encourage the attendance of children, going from the implementation of attendance control charts with the participation of parents and students, to the use of text messages or school communications in order to discover the motives of truism of a student and urge the parents to send them to school. Finally, when students have dropped out of school remedial programs can be generated in order to regularize these students who have stopped participating in educational services at some point.

**Child labour** affects 5 y 10% of students in the region generating significant learning inequalities. In doing paid work outside of the home, students cannot dedicate time to doing homework and carrying out childhood activities such as playing and relaxing in a suitable form. This has repercussions on students through exhaustion and learning difficulty and additionally can affect school attendance.

The **strategies for eradicating child labour** are various. Firstly, and which has been previously mentioned, conditional monetary transfers can be a device that contributes to eliminating child labour. It can offer income to vulnerable families which compensates for the income lost by school attendance. However, this type of policy should be complemented with education programs that take into consideration social and cultural contexts that impede the effectiveness of monetary transfer programs. These types of programs include psychosocial support measures and educational attention for child laborers.

**Learning inequality** among children is a pending challenge in the region. In general, it is observed that girls have better outcomes in the reading tests while boys attain higher achievements in math and science. The global tendencies also show that the learning advantages of girls compared to boys are explained by differences in observable variables, while the advantages of boys persist after considering the characteristics of the schools and students. This suggests that the advantages of girls are explained by attributes such as the dedication of more time to study, while the advantages of boys appear to owe themselves to patterns of socialization in school (and in society at large) which provide them with more and greater learning opportunities.

**Overcoming of gender inequality** happens because of different and complementary measures. The first of these is the political will of governments to recognize in these disparities as an education policy problem. Secondly, it requires specific programs that promote the insertion of women into professions related with math and the applied sciences as well as in environments like politics. Likewise, it is necessary that teacher training incorporate practical perspectives on gender, in which teachers of the region can provide equal opportunity for boys and girls to participate in all activities, which should be passed on with a peer approach in all educational organization.

The **indigenous people** of Latin America show significant disadvantages in learning. Such gaps in education are not explained by socio-economic differences with the rest of the population but are because of a combination of social practices that throughout time have deepened the marginalization of these groups. It is very well certain that while in the last few decades significant advances in matters of recognizing indigenous people have been made, there still exist inequalities that affect them severely.
The measures for improving indigenous peoples’ opportunities belong to three different areas. Firstly, it is necessary to reinforce teachers’ capacity for proactive inclusion of indigenous children in educational processes. Initial and continual teacher training programs should offer concrete options for inclusion of cultural and linguistic diversity in schools. It turns out to be indispensable that the initial training of teachers who serve indigenous populations provides tools for teaching a second language, which allows students to make an appropriate transition between their mother tongue and the second language. Secondly, it is necessary to develop diverse teaching and evaluation methods, which consider the cultural characteristics of the indigenous population which are associated with different ways of organizing learning processes and their evaluation. Thirdly, it is indispensable to strengthen curricular designs and develop educational materials that foster interculturality and that are at the disposal of all schools. This is why, given the dynamics of territorial migration, it is increasingly common to find indigenous students in urban schools in areas that have not traditionally been recognized as indigenous.

The education system and its characteristics are represented by the middle circle of the ecological model and in it, the structural attributes that shape the work of schools and learning and growth opportunities that they offer to students are observed. Immediately after the main features of the education system are presented which should be seen by policy in order to promote educational development in countries.

The structural characteristics of the education systems are key in shaping learning opportunities and guaranteeing the right to education. In this report compulsory education, financing and evidence based decision making are reviewed. The compulsory years of education establish a legal commitment by governments to assure that the whole population reaches this minimum threshold. In the regions, the compulsory years of education vary in a range that goes from 6 to 15 years. Education financing, for its part, recorded an increase in the 2000s associated with high economic growth rates in the region. The most recent data indicates that investment in education by the countries is uneven, showing rates that go from 2.5 to near 7% of GDP. Evidence based decision making is a process that is still taking form many countries. This is a significant base in order to strengthen the process. Already, all of the countries in the region collect educational data and evaluate their students whereas a smaller group of countries collect information about educational and teaching management, financial management, school inspections and teacher evaluation. However, it isn’t clear that the information produced is organized and linked in such a manner that it supports decision making and allows for a suitable exploitation of the data in order to constantly monitor the functioning of school systems and the attainment of the education policy goals.

The recommendations related to education systems’ structural attributes are organized in two volumes of distinct ideas. Firstly, it is necessary for school systems to be focused on improving opportunities with a vision of educational pathways. On the one hand, it is necessary to widen the educational path for children and thus it is indispensable to gradually increase the years of compulsory schooling until they include the high grades of secondary education. On the other hand, and from an evidence based decision making perspective, it is necessary to monitor the individual paths of students throughout the school system. This follow up must place emphasis on the main bottlenecks and obstacles that make the movement of students through the education system more difficult. Occasionally the transition between educational levels, which implies changing schools, tends to generate significant
drop-out rates in the school system on the students part. It is worth mentioning here that the external rendering of accounts through measurement of learning can be a useful tool for the alignment of educational actors but its use in the absence of supporting policies does not bear the hoped for fruit. On the contrary, it can generate perverse effects in the medium term. For this reason using the rendering of accounts strategically is recommended in order to bolster areas that require improvement while always considering that this type of policy reaches its ceiling of effectiveness in a relatively brief period of a few years. Thus, school systems' actors can commit to strategic behaviors in order to improve results that don't promote improvement in teaching, such as teaching for the test, substituting intellectually challenging lessons for practicing for standardized exams. Secondly, regarding financing, gradually increasing the amount of public resources that are destined for education is required in the majority of countries. It is also necessary to establish financing formulas that consider specific situations of vulnerability and it is recommendable to use management indicators for allocation and relative accounting of resource use.

Quality Initial education has been singled out as a key that opens doors to a virtuous circle of holistic development and of successful social insertion in the long term. TERCE data shows that students who pass this educational level consistently reach higher learning levels than their counterparts who did not have the opportunity to attend preschool education. In the region, even though the participation rates in preschool education have increased, they still are low in some countries.

Initial education can be improved through different types of policies. Firstly, multi-sectoral approaches to early childhood care have demonstrated important achievements in the region through combining healthcare, education and social support, especially when it is focused on populations with lower socio-economic levels. Secondly, capacity development programs are required in order to improve the quality of initial education in a way that it is adopted in an environment of development opportunities for children. The last one implies a social change so that the population values the importance of this level of education instead of early childhood fulfilling the role of kindergarten where children mainly receive care, but not education.

Early childhood policies in the region have different components aligned with some of the recommendations previously identified. The aforementioned study of eight participant countries of TERCE shows that there is a tendency to implement integrated and interinstitutional programs that include education, health and awareness raising in parents. There is also an approach in some countries to improve the quality of initial education through cultural changes and teaching and parent training. As seen in Table 15, in six countries (Colombia, Costa Rica, Mexico, Paraguay, Peru, and the Dominican Republic) legislation establishes at least one year of compulsory preschool education. Additionally, six countries have inter-sectoral programs for early childhood, which are: Colombia, Costa Rica, Guatemala, Nicaragua, Paraguay and The Dominican Republic. Finally, Costa Rica, Mexico and Peru have programs focused on indigenous children and rural areas.
Grade repetition is a problem that affects learning opportunities in the region. Close to a quarter of students in third and sixth grade say that they have repeated at least one grade in primary education. Repetition doesn’t fulfill the promise of remediating unachieved learning, given that students who have repeated grades show consistently lower levels of learning than those who haven’t done so. In addition, students who repeat generate within themselves significant socioemotional costs that in the end also affect academic performance and increase the probability that these students drop out of the education system.

In order to confront the pernicious effects of repetition it is necessary to have three types of complimentary measures. This first of these consists in establishing norms that limit repetition and help empower the educational paths of these students. This type of measure tends to end up being countercultural in the region as amongst the education system’s actors, the concept of repetition as a remedial strategy is very deep-rooted, despite the overwhelming evidence which shows the ineffectiveness of repetition in improving educational opportunities. Secondly, it is necessary to design and implement in schools programs for preventing educational gaps in students and avoid repetition. These programs must be focused on discipline where students confront difficulties and must have a specific timeframe for fulfilling the remedial objective. These types of initiatives can be strengthened by central authorities by designing pedagogical materials and specific preventative interventions that teachers can implement. All preventative programs should be subject to constant and rigorous evaluation on the part of teachers and school administrators who implement them. Thirdly, given that repetition has generated negative effects in students, programs aimed at drawing back students who have dropped out of school must be implemented, in order that they finish compulsory education.

<table>
<thead>
<tr>
<th></th>
<th>Have early Childhood Policies</th>
<th>Year of Compulsory Early Education</th>
<th>Focused Programs</th>
<th>Inter-sectoral Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Costa Rica</td>
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<tr>
<td>Guatemala</td>
<td>●</td>
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<tr>
<td>Mexico</td>
<td>●</td>
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<tr>
<td>Nicaragua</td>
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<tr>
<td>Paraguay</td>
<td>●</td>
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<tr>
<td>Peru</td>
<td>●</td>
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</tr>
<tr>
<td>Dominican Rep.</td>
<td>●</td>
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</tr>
</tbody>
</table>

● = there is policy  
Source: (Treviño, Place, et al., 2013).
Teacher training in the region shows some chiaroscuros. On the one hand, initial training has increased the number of years of training to reach certification, in the majority of countries through preparation by university professors. Additionally, the majority of teachers in the region have an education degree. However, doubts persist with respect to the quality of initial training programs in the region and how well they prepare teachers for their insertion into the working world. This increase in years of schooling has not come accompanied with improvements in teachers’ classroom practices. On the other hand, continuous training is clearly lacking. On average, 30% of teachers or less have participated in instances of continuous training, even though there is a wide variability in this indicator amongst countries.

In the study of eight participant countries in TERCE previously mentioned some central characteristics of teacher training in region can be seen (Treviño, Place, et al., 2013). These countries have defined policies that regulate initial teacher training institutions, as well their programs of study such as teacher in-service training and hiring and firing processes. With respect to teacher incentives, the policies in this area are nascent. In terms of the length of initial training, this varies between three years (in Guatemala) and five or six years (in certain programs in Colombia, Mexico and Peru). The majority of degrees, however, last approximately four years. In almost all countries, universities and teacher training institutes are autonomous, although the must comply with state standards, which are monitored and evaluated through different systems of quality assurance. In table 15 it can be seen that five of the eight countries consulted stated having certification programs for initial teacher training programs. In terms of the type of institutions that impart initial teacher training programs, it is observed that all of the countries surveyed, with the exception of Costa Rica, have training institutions only for teachers, and in general, also have programs offered by universities that award other degrees (with the exception of Mexico) (Treviño, Place et al., 2013).

<table>
<thead>
<tr>
<th>Institution</th>
<th>Colombia</th>
<th>Costa Rica</th>
<th>Guatemala</th>
<th>Mexico</th>
<th>Nicaragua</th>
<th>Paraguay</th>
<th>Peru</th>
<th>Dominican Rep.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutions that impart initial teacher training</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Universities that impart other degree programs</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

● = There is a policy

Source: (Treviño, Place et al., 2013) The certification of teaching programs in the Dominican Rep. is a policy that is set out but still has not been implemented.
In terms of in service teacher training, and as is appreciated in Table 16 which emphasizes that all countries have or are developing policies in their ministries or secretariats of education which define in service teacher training. Only Paraguay and The Dominican Republic indicate that their in service teacher training programs are periodically and consistently carried out on time. The same countries, together with Costa Rica, indicate that in service training is given by other teacher training institutions. In addition the policy includes teacher incentives, which already exist for merit, for teaching indigenous languages or working in rural areas. While the majority of countries state having salary adjustment systems for years of experience, only Guatemala, Mexico and Peru, have merit based teacher incentives. There are incentive programs in Costa Rica and Guatemala for teachers who teach indigenous languages or in rural areas. All of the countries surveyed have set out policies for teacher hiring and firing. In general, hiring is carried out by means of a competitive tender. Firing tends to be regulated by law, according to the teacher statutes in each country (Treviño, Place, et al., 2013).

Table 16. Teacher development policies

<table>
<thead>
<tr>
<th>Country</th>
<th>In Service Training</th>
<th>Incentives</th>
<th>Hiring</th>
<th>Firing Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ministerial Policy</td>
<td>Other</td>
<td>Consistently</td>
<td>For merit</td>
</tr>
<tr>
<td>Colombia*</td>
<td>●</td>
<td></td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>●</td>
<td>●</td>
<td></td>
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</tr>
<tr>
<td>Guatemala</td>
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<tr>
<td>México</td>
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<td>Nicaragua</td>
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<tr>
<td>Paraguay</td>
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</tr>
<tr>
<td>Perú</td>
<td>○</td>
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<td>●</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

● = Has policy ○ = Policy in development ■ = Information not available

Source: (Treviño, Place, et al., 2013).

Tackling the challenges of teacher training requires a grouping of complementary initiatives. Initial training must be improved; attracting the best candidates from high secondary education to the pedagogical disciplines; improving programs with emphasis on profound knowledge in the disciplines; reinforcing preparation for fostering learning among socially disaffected groups; and, regulating and continually evaluating initial training programs. As well, continual training must be improved through an increase in training opportunities for all teachers; the aligning of different programs so that they model and impact directly on teaching practices which promote holistic development and the learning of all students; the design and implementation of professional development systems for teaching linked with continuous training and the stage of career path in which teachers find themselves or herself; regulation the offering of continuous training and postgraduate courses in order to assure quality; and, the promotion of collaborative learning among teachers inside schools.
The use of information and communication technologies (ICT) in schools faces two obstacles in the region. The first consists of a digital gap that persists in the region and that is related with differential access to technology according to the socio-economic level of students who attend school. Thus, a smaller proportion of schools that serve lower income students tend to have ICT in comparison with schools who draw students from higher socio-economic levels. The second obstacle is of a more complex character. It is related with the difficulty of transforming ICT into a driver of learning in the school, given that the results of TERCE indicate that the use of ICT does not drive improved learning. On the contrary, an intensive use of technology in school is associated with lower levels of learning.

The educational policy recommendations for the use of ICT are concentrated in two areas. Firstly, public policy should follow a few general criteria for ICT use in education, among those which are used to define access to technology and the internet as a right the population must have, but are not able to by their own means; assuring basic training for teachers and families in digital technology use; establishing regulations that guarantee privacy rights, copyright the fostering of local cultures and equipment recycling; assessing best educational practices for technology use; and, using the potential of technology in order to foster life-long learning and the development of a diversity of talents. Secondly, to have effective ICT used in schools, it is necessary to introduce measures aimed at promoting personalized pedagogical processes focused on the students; facilitating collaboration inside and outside of the school in order to create learning communities; taking advantage of students’ knowledge because for their familiarity with ICT; including the use of ICT as a tool for learning within initial and continual teacher training programs; fostering the creation of exchange networks to share pedagogical and curricular models, like pedagogical practices; and, encouraging spaces for innovation in ICT use in order to support social and economic skills development amongst students.

Schools are found in the central circle of the ecological model, which are the institutions put in charge of materializing daily the right to quality education for all. In the following paragraph the main challenges and recommendations relative to school characteristics are presented.

Learning inequality inside schools constitutes the first education policy challenge. Even if variations in the degree of learning inequalities inside schools between countries are shown, in the great majority of cases the achievement differences inside schools represent, at least, 40% of total learning inequalities. This suggests that teaching practices implemented in school establishments are not effective in promoting learning among all students. It is worth mentioning that these disparities are not related with socio-economic differences among students. As the TERCE results show, schools tend to serve socially homogeneous populations given the levels of school segregation in the region.

Learning inequalities in schools must be addressed with a systemic approach for the whole school. Schools must design, implement and evaluate service mechanisms according to the diversity of learning needs so that they apply to the whole organization. In this way, the mission to improve the learning of students who have fallen behind is shared by all administrators and teachers. Support mechanisms for stimulating the learning of students with lower achievement levels must be specific and have a defined timeframe. This is to say that, instead of labelling a student as being of generally low performance, the subject in which they are having difficulty must be identified. For this reason, schools and education systems must try to avoid the development of rigid grouping processes inside schools as these are highly inequitable. Additionally, it is necessary to elaborate a reinforcement plan with clear objectives and a specific timeframe for obtaining them. Even if this
is a national challenge, schools themselves can be the ones who, from now on, begin to generate pedagogical practices that close gaps within schools, through the implementation of tutoring processes, special support and curricular adaptations according to the needs of each student. Finally, it is important that the countries of the region develop standards and criteria so that teachers can empower differentiated learning strategies and allow them to help to capture the diversity (academic, social, cultural, ethic) of the students in the classroom.

**Making available textbooks and notebooks for schoolwork** is still an unfinished task in the region, despite great efforts in the last 20 years to provide educational material to children. Around a third of students in the region state not having textbooks or notebooks to do schoolwork. Even though these educational materials do not guarantee learning, they provide the minimum conditions for it. Furthermore, textbooks are an essential reference for aligning curricular implementation and provide many youth and their families with the opportunity to engage in formal written culture. There are many families whose socio-economic condition impedes access to quality written material.

**Textbook and materials distribution policies** are fundamental to safeguarding their provision to all students, particularly the most vulnerable. The measures for generating and distributing these types of materials can take different forms, from the creation of public institutions in charge of production and distribution to tendering where private entities provide said resources to the state. In scenarios of resource shortages, it is recommendable that distribution policies be focused on the most vulnerable and/or geographically isolated populations.

**School resources like in infrastructure, installations and basic services** are important as much as for the wellbeing and security of students, as for establishing a minimum base of operations for schools that foster learning. These tend to be unequally distributed inside education systems and less available in schools that serve economically and socially disaffected students. Even though infrastructure and service provision, in their own right, do not raise or guarantee the quality of teaching, they do offer minimal conditions of security and hygiene to students.

**Policies for improving infrastructure**, school installations and basic services require investment and design suitable for local realities. Thus, it is necessary that programs pursuing this objective include distinct construction forms and techniques, adapted to local and climatic traditions, which can incorporate use of alternative energy and quality sanitary installations specifically adapted for rural or geographically dispersed areas.

**Effective time use for teaching in schools is essential for learning**, and can be decomposed into four parts: a) official school calendar; b) the continual presence of students in the school and classroom; c) continual presence and punctuality of teachers; and, d) effective time use during classes. The length of the school calendar is significantly different between countries and oscillates in a range from 720 to 1083 class hours annually. These differences, if taken cumulatively during the six years of primary education, represent a disparity of 2,178 more classroom hours with the longest calendar equating to nearly two more years of schooling. As was previously mentioned, almost a quarter of students in the region show indices of chronic truism, which impedes their ability to receive learning opportunities in school. Attendance and punctuality of teachers stands out for its effect on academic achievement. In the region less than 10% of teachers miss class with regularity. This truism is similar in public urban and rural schools. Finally, time during classes is not being used completely in two reasons. The first of these is that close to 10% of teachers aren’t punctual. On the other hand, during class it has been observed that teachers only spend between 50 and 65% of the
time on academic activities. These four factors show that there is a wide margin of improvement for time use in schools.

The improvement of teaching time use requires a set of parallel measures. In the first instance, it is indispensable to establish measures to verify the fulfillment of the school calendar. Therefore laws and agreements that oblige its strict fulfillment are required. In case of teacher work stoppages, signing agreements assuring this type of mobilization does not affect students’ learning opportunities and that lost days are recovered is required. In addition, policies are necessary to foster taking advantage of the school calendar in pursuit of learning. Secondly, and as was previously explained, strategies are necessary for improving students’ school attendance indexes. Thirdly, rules are also required for limiting the absence of teachers from school for unjustified reasons and establishing transparent teacher attendance monitoring systems. Complementarily, it is necessary to design incentives associated with regular attendance to schools with difficult access linked to working in those schools and not becoming a in a benefit that teachers take with them once they stop working in these schools. Lastly, it is indispensable to improve pedagogical management in classrooms through teaching practices that aim at: a) minimizing transitions between activities (or give them a pedagogical character that furthers some type of learning); and, b) establishing behavior patterns from the beginning of the school year that minimize behavior problems and generate healthy patterns of fellowship within the classroom.

School leadership on the part of school administrators is a key factor for creating educational opportunities for students. Even though variables relative to leadership are related superficially with the academic results in TERCE, the regional and global evidence with respect to the importance of this factor for learning is conclusive. The regional tendencies with respect to administrative leadership show that there is a variability of administrative performance contexts with significant groups that carry out their work in rural sectors of the region; and, that administrators, who are generally made responsible for school operations although generally they are not able to select or hire other members of the administrative team (when this is possible, which is already the case in single teacher schools the administrator fulfills both functions at the same time).

The main measures for improving school leadership aim at five areas. The first is making specific policies that encourage the leadership of administrators in terms of statutes, working conditions, functions, performance standards, initial and continual training, selection, promotion and evaluation. The establishment of performance standards that guide administrative work towards fostering student learning is essential. Secondly, special policy units for administrators are required that, additionally, collect systemic information which allows for the understanding of administrators and their working conditions. Complementarily, it is necessary to foster the creation of professional associations for administrators. Thirdly, it is necessary to review the roles and responsibilities of administrators, prioritizing those relative to pedagogical and organizational leadership in service of encouraging learning. Fourthly, it is indispensable to review the professional development path for becoming an administrator, in such a way that it is not solely reserved for the years previous to a teacher’s retirement. Finally, it is necessary to design professional training processes that incorporate specialized training to be taken prior to the assumption of the position as well as in service professional development.
Teaching practices in the classroom, the other key process in schools, has shown a robust relationship with learning which present challenges for the region. Firstly, a good climate of fellowship in classrooms is fundamental in order to deliver learning. The study shows that between 20 and 40% of students in third grade indicate that students in their classroom bother each other or that there are teasing amongst classmates. Secondly, the majority of students in sixth grade express having teachers who encourage them, seek out different ways of explaining so that they manage to learn and help them identify errors.

The improvement of classroom teaching practices is a long term undertaking involving capacity building. Regarding this, two areas which must be addressed are identified. Firstly, it is indispensible to make professional standards frameworks aligned with the educational reality of the country and that guide the action of initial and continuous training of the teaching staff. Secondly, it is necessary to develop programs that help teachers, in their daily practice in the school, to improve their classroom performance. These programs tend to include apprenticeship; modeling and feedback initiatives based on conceptual frameworks and previously defined clear practice.
Future Agenda

The materialization of changes in education which seek to introduce policy takes time, especially in order to be reflected in the practices of educational actors and students’ performance. However, alignment and coherence amongst policies can accelerate the rhythm of transformations in specific areas. One decade, or on occasions less time, can be a prudent maturation period for verifying if the policy measures have had the desired effect. This pace of change is seen to be affected additionally by the social, economic and political situations in countries. In the following paragraphs suggest some of the elements to consider for an agenda for the immediate future in the region when considering education policy recommendations.

Guaranteeing the right to education requires the strategic use of information for decision making which allows the fulfilment of this global commitment. Given the level of institutional development in the region it is currently possible to establish transparent monitoring and tracking mechanisms in order to verify the fulfilment of education policy objectives that, allow adjustments to be carried out during the process of implementation. The consistent and transparent use of evidence focused on monitoring priority policy objectives can be an important means for the constant alignment of policies with the purpose of maximizing the fulfilment of goals put forward.

The region has gone from an era of economic bonanza to period of productive stagnation which puts pressure on state budgets and could affect the ability to invest in education. For this reason, the necessity to encourage more efficient resource use is discerned so that policy can achieve its objectives in a scenario of greater economic tightening and changing needs.

Policy should maintain its focus on improving equity through compensatory criterion with more investment in capacity development in schools that serve students with greater needs. Closing in educational gaps between population groups – children, vulnerable populations, indigenous people and rural populations, among others - should mark education policy agenda in the most unequal region in the world.

Educational challenges in the region are varied, dynamic and of a very distinct nature. For this reason it is necessary to strengthen empirically based educational research in order to better understand educational phenomena and suitably dimension their magnitude. The use of currently collected data by education authorities can be an input of great value in this task. Quantitative research must be complemented with other research of a qualitative nature which aims at understanding school dynamics and, particularly, the interaction between student and teacher in the classroom. Without evidence with respect to classroom interactions and teaching processes policy evaluations can only speculate with respect to how the adopted measures have transformed learning opportunities that students receive on a daily basis.

Continual performance tracking in education systems is fundamental. In this undertaking, The Latin American Education Quality Evaluation Laboratory is called to fulfill a key role is supporting countries. This paper should continue with academic performance monitoring in countries and to that could be added another grouping of crucial elements for encouraging the advancement of education systems. One of the new areas to consider is the study of social and emotional skills of students and educational actors. They are a fundamental basis for democratic coexistence and cognitive development. Another area is the systematic study of processes in schools and classrooms which requires different types of methodologies which are already in the reach of the
hand of research in the region. Lastly, the generation of evidence based decision making capacities is an area that still requires development in the region. Currently countries have information and abundant data for evaluation, but still waiting to take up the task of making strategic use of this data for decision making and policy refinement.

Finally, it is necessary to value the effort and progress that has been made in the region in the area of education in recent years and, simultaneously, to recognize that there remain many pending tasks to achieve for the full satisfaction of the right to education. The task is complex and governments are called to lead it, but it should be a commitment that gives strength and appeals to all social actors so that policies that have been shown to be effective transcend government terms and move ahead shaping solid institutions in service of the Right to Education.
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